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62.27

Descriptive Catalogue

Will H. Tracy &

FARM AND GARDEN

SEEDS

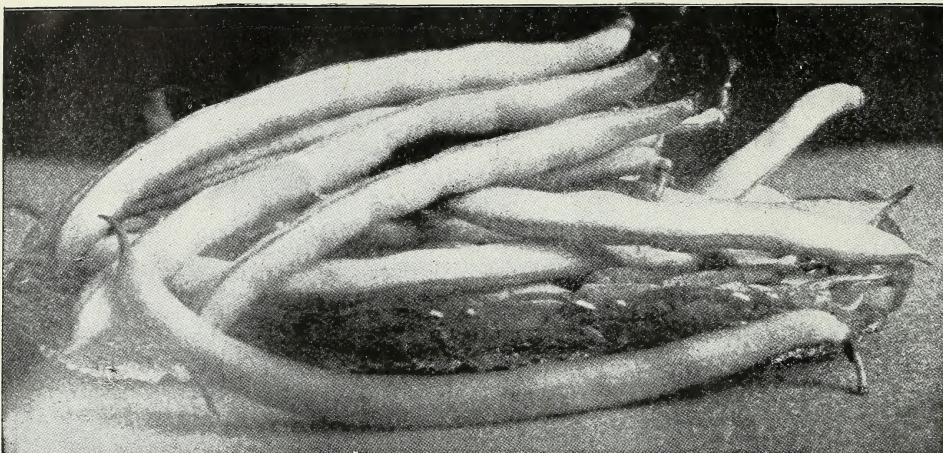


Ottumwa Seed Co.

Ottumwa, Iowa

209-201 South Court St.

TWO NEW BEANS

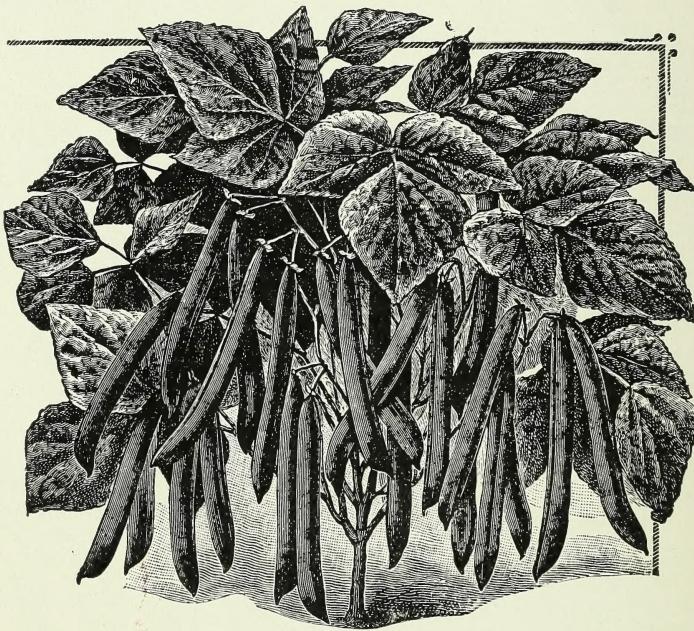


WEBBER WAX BEANS

Webber Wax. Unquestionably one of the best wax podded beans ever introduced. It is a market gardeners bean, having been originated in one of the best market gardening sections of the West. It produces a deep golden colored pod of good length; shape semi-round, thick meated, stringless and of exceptional quality. Vines strong, holding the pods well up, with good leaf covering and bearing in profusion. No other wax bean can compare with this one in the exceedingly bright color of pod. It sells readily on the market on account of this attractive color. The dry bean is oval, medium sized, yellow.

Pheasant Eye. A valuable new green podded variety. Vines hardy, sturdy, well leafed. Pods long, meaty, stringless and of excellent quality. Originated from plant found in Bountiful; it retains all the good points of that variety, with added symmetry of pod. It is early, productive and of exceptional value for market garden, or home use. The dry bean is slim, kidney shaped. Color white, splashed more or less at eye side with yellowish brown, which coloring also surrounds eye. The name, Pheasant Eye, was suggested by this coloring.

Prices of seeds change with the market. We give our customers the benefit of the lowest market value for reliable goods. We are in shape to handle the largest or smallest order. When ready to buy your seeds ask for quotations.



PHEASANT EYE—GREEN POD

USEFUL INFORMATION

Average weight of the Straw of the Cereal Crops per acre. Wheat, 3000 to 3500 lbs.; Oats, 2000 to 2500 lbs.; Barley, 2100 to 2500 lbs.; Rye, 4000 to 5000 lbs.; Peas, 2700 lbs.

Average weight per Acre of the Root and Hay Crops. Turnips, 20 to 30 tons; Carrots, 25 tons; Potatoes, 6 to 12 tons; Hay, 1 to 2 tons; Clover hay, 2 tons.

Average gross product per acre of the Cereal Crops. Wheat, 20 to 25 bushels; Oats, 35 to 40 bushels; Barley, 35 to 40 bushels; Rye, 25 to 30 bushels; Peas, 20 to 25 bushels.

Weights of various Farm Crops. Two and one-fifth cubic feet of new wheat weighs 112 lbs.; Oats, 3.65

cubic feet, 112 lbs.; Barley, 2.38 cubic feet, 112 lbs.; Straw in its usual condition weighs $3\frac{1}{2}$ lbs. per cubic foot. It may be compressed to weigh nearly 6 lbs. per cubic foot. Hay in like manner will weigh respectively 5 and 8 lbs. per cubic foot. A bushel of grain when lying on the floor occupies a space of one square foot with a depth of $15\frac{1}{2}$ inches. Turnips weigh about 1000 lbs. to the cubic yard. Ruta Baga about 1350 lbs.; Mangel Wurzels, about 1100 lbs.; Potatoes about 1250 lbs., and Carrots about 1100 lbs. A ton of Timothy Hay in stack or mow well pressed measures 480 cubic feet, or $6 \times 8 \times 10$ feet. A ton of Mixed Timothy and Clover measures 520 cubic feet. A ton of Mixed Meadow Grasses measures 600 cubic feet. A ton of loose Straw measures 900 cubic feet.

LIST OF FIELD SEED WE CARRY IN STOCK.

Owing to the fluctuation in prices on field seed during the season it is impossible to quote prices here, but our prices are always in line with the markets. We will send samples and quote prices on request.

CLOVERS		SWEET CORN		OUR DISCLAIMER	
Medium Red	VALUES	Early Minnesota	VALUES	While we exercise the	
Mammoth Red	CHANGE,	White Corey	CHANGE	greatest care to have all	
Alfalfa	ASK	Red Corey	ASK	seeds pure and reliable,	
Alsike	FOR	Chicago Market	FOR	and also true to name. we	
White	MILLET	Country Gentleman	MILLET	do not give any warranty	
TIMOTHY	MARKET	Stowell' Evergreen	MARKET	expressed or implied. No	
Fancy Kentney Bluegrass	PRICES	MISCELLANEOUS	PRICES	officer, agent, or employee	
Evergreen Lawn grass		White Rice Popcorn		of the OTTUMWA SEED	
MILLET		Dwarf Essex Rape		CO. is authorized to make	
German		Seed Spring Wheat (both		any warranty whatsoever.	
BROOM CORN OR HOG		smooth and beady)			
Early Fortune		Seed Oats			
Early Amber Cane seed		Seed Barley			
		Seed Buckwheat			

Beans.....	25c per Qt. 15c Pt.	Cress	25c per Oz	Parsley	10c per Oz
Peas.....	25c per Qt. 15c Pt.	Egg Plant	25c per Oz	Pepper.....	30c per Oz
Sweet Corn.....	25c per Qt. 15c Pt.	Kale.....	10c per Oz	Pumpkins sweet..	5c per Oz
Asparagus	15c per Oz.	Kohl Rabi..	10c per Oz	Pumpkin in Field	5c per Oz
Brussels Sprout	10c per Oz.	Leek	15c per Oz	Radish	10c per Oz
Broccoli	10c per Oz.	Endive	10c per Oz	Rubarb.....	20c per Oz
Beets	10c per Oz.	Lettuce.....	10c per Oz	Salsify	10c per Oz
Beets Mangels...	5c per Oz	Musk Mellon.....	5c per Oz	Spinach.....	10c per Oz
Cabbage	20c per Oz.	Onion Seed	15c per Oz	Squash.....	10c per Oz
Carrots.....	10c per Oz	\$1.74 per lb		Tobacco.....	50c per Oz
Cauliflower.....	\$1.00 per Oz. 5c Pt	Onion Seed white. 20c per Oz		Tomato.....	30c per Oz
Celery.....	25c per Oz	\$2.25 per lb.		Turnips.....	5c per Oz
Celeriac	25c per Oz	Okra.....	10c per Oz	Rutabaga.....	5c per Oz
Cucumber	10c per Oz	Parsnips	15c per Oz	Onion Sets.....	10 c Qt 3 Qt 25c

Special prices to Market Gardners and those buying large quantities of Garden Seed.

Minnesota Grown Red River Early Ohio Seed Potatoes, as well as the very choicest eating stock.

We also carry the most complete line of Poultry supplies that can be found in the state. We are the sole manufacturers of the famous W. S. RUSSELL'S FAVORITE SCRATCHING FOOD and W. S. RUSSELL'S CHICK GROWER.

Remember we make the above feeds ourselves and guarantee them to be the very purest and cleanest feeds on this or any other market.

Geo. H. Lee's poultry Remedies, as follows:-

GERMOZONE, a sure cure for Colds, Gapes, Cholery and other ills.

EGG MAKER, The very best Egg Producer.

LICE KILLER, in Quarts, Halves and Gallon Cans.

FLY KNOCKER, in sizes as above.

Drinking Fountains and Feeders.

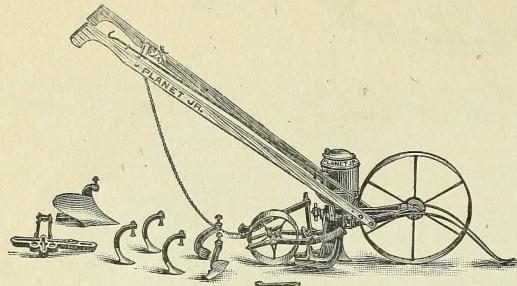
Willow Charcoal, Poultry and Chick Sizes.

Beef Scrap	Clam Shell	Leg Bands
Alfalfa Meal	Incubator Thermometers	Egg Testers
Cured Bone	Brooder Thermometers	Etc. Etc., Etc.,
Cry—Co Grit	Poultry Markers	

Besides the above we carry a full line of Feed such as:

Hay	Red Dog	Alfamo
Corn	Tankage	Alfalfa Meal
Chop	Wheat	Sunflower
Bran	Oats	Hemp & Canary Seed
Shorts	Barley	
Midlings	Oil Meal	

No. 6 PLANET JR.



Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow Combined.

Price, Complete, \$13.50.

As a Hill and Drill Seeder Only, \$11.00.

Packed weight, 64 lbs.

Equipment:

Two 6-inch hoes.

Three improved steel cultivator teeth.

Large garden plow.

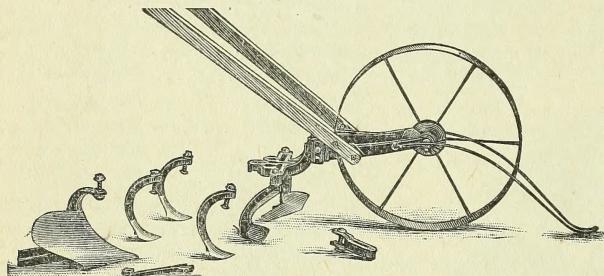
Improved double leaf guard.

This is our latest **Planet Jr.** Combined Hill and Drill Seeder and Wheel Hoe and after three years' gratifying use in the field, every detail has been perfected.

The No. 6 Wheel is 16½ inches high, making an easy running seeder. The spokes and rim are steel and the construction is substantial.

The Feed. This is the most accurate we have ever sent out; the part of the hopper in which the feed wheel revolves is machine-turned and the feed wheel is dressed to fit the hopper. The outside of the feeding cylinder is also machined, so that the cut-off works accurately, leaving no seed in the hopper.

The seed falls in full view, as the rear of spout is open and has a white lining.

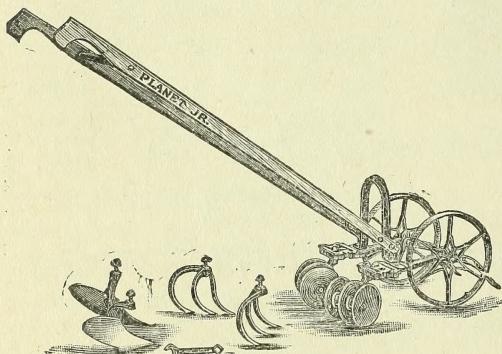


No. 36 PLANET JR. SINGLE WHEEL HOE, CULTIVATOR AND PLOW.

Price, Complete, \$6.25.

Weight, packed, 33 lbs.

The whole combination is the best and most useful we have ever offered. We advise buying the machine complete, as there is a considerable saving by doing so, but we sell the Seeder and the Wheel Hoe separately if desired. The price of the machine complete is \$13.50; as a Hill and Drill Seeder only, without any cultivating attachments, \$11.00; with the cultivating attachments only, as shown in the cut above (No. 36), \$6.25. The extra attachments shown on later pages will also fit the No. 6 machine complete or the No. 36 Wheel Hoe.



No. 38 PLANET JR. SINGLE WHEEL DISC HOE, CULTIVATOR AND PLOW.

Price, complete, as in cut, \$7.00.

Packed weight, 30 lbs.

1 set discs. 1 pair 3-prong cultivator teeth. 2 plows.

1 leaf lifter.

This is the Best Double Wheel Hoe Made. All Tools Will Fit This Machine.

No. 4 PLANET JR. COMBINED HILL AND
DRILL SEEDER, WHEEL HOE,
CULTIVATOR AND PLOW.

Price, Complete, \$11.00. As a Seeder Only, \$9.00

Steel Driving Wheels Weight, packed, 47 lbs.
Holds 2½ quarts.

Equipment:

One pair of 4½ inch hoes Three cultivator teeth.
One garden plow. One leaf guard.

The tool combines, in a single convenient implement, a capital hill-dropping seeder, a continuous row seeder, an admirable single wheel hoe, an excellent furrower, a capital wheel cultivator and a rapid and efficient wheel garden plow. In a word, with a great variety of tools, excellent in design and quality, it is without an equal for easy adjustment, lightness, strength and beauty. It is a practice, every day, time, labor and money saver. It sows in continuous rows with great uniformity, and drops with accuracy in hills, 4, 6, 8, 12, or 24 inches apart. **THE FEED IS AUTOMATICALLY** stopped by raising the handles, and started by lowering them.

AS A SEEDER the No. 4 is accurate, simple, durable, reliable and easy running, doing first-class work in every particular.

The sowing device consists of a feed wheel with four wings, which is driven by a spindle with bevel gears at the main wheel.

The feed wheel revolves in a brass cylinder, the ends of which are open to the hopper above, and stirs the seeds so that they fall in a regular stream through a diamond-shaped opening in the lower side of the cylinder. The opening may be varied in size by a **cut off** sliding on the outside of the cylinder, and connected to a **lever** and index at the right hand side of the hopper.

The Index contains the names of the principal seeds, with marks for setting to drop in hills or to drill in a continuous row. Having set the index for any seed, a thumbscrew is screwed against the short end of the lever, so that the feed can be shut off at the ends of rows, etc., and yet returned to exactly the same position when ready to sow again.

No. 17 Planet Jr. Single Wheel Hoe

Price, as in cut, \$5.00.

Packed weight, 26 lbs.
One pair of 6 in. hoes. Three steel cultivator teeth.
One large garden plow.

Fourteen and sixteen-inch rows are hoed at one passage; by using a cultivator tooth between the hoes.

THE PLOW is of superior design, complete with land-side; is large, and capable of heavy work and is readily changed for depth. It is generally the first attachment to be used in the Spring.

CULTIVATOR TEETH. A set of three, of new design, adjustable for pitch, do invaluable service in deep culture. Use a single tooth for marking out.

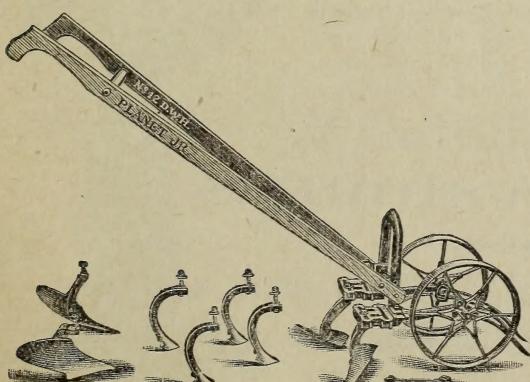
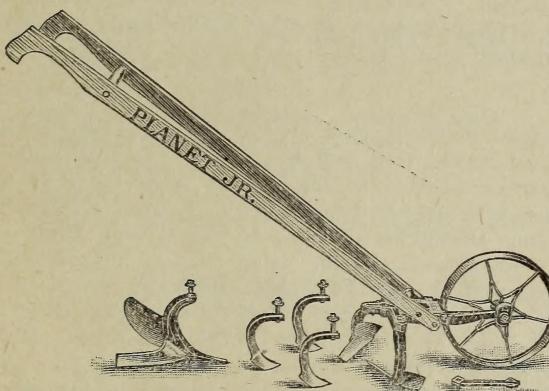
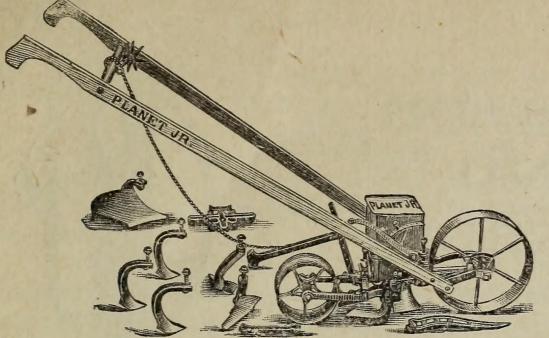
No. 12 PLANET JR. DOUBLE
WHEEL HOE.

Price, with Attachments as in cut, \$7.00.

Packed weight, 32 lbs.

One pair of 6-inch hoes. Two pairs of hollow steel cultivator teeth.
One pair of plows. One pair of leaf lifters.

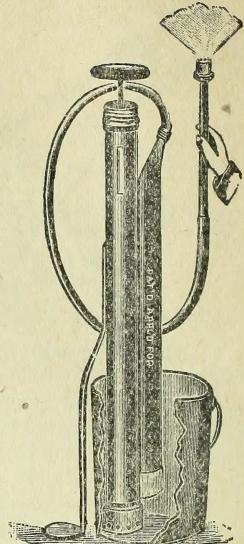
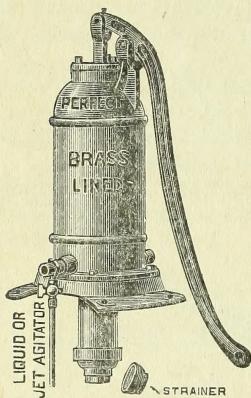
One hoe is set ahead of the other to prevent trash from catching between them and tearing out the row. The curved shield like front ends, protect both the leaves and roots of young plants, admirably. The hoes leave the ground almost level.



WE ARE HEADQUARTERS FOR SPRAYERS AND SPRAYING MATERIAL

This is a new line but a very necessary one that we have added. You will find our line of sprayers very complete, ranging in price from fifty cents (50c) to the very best that is made. You can buy from us just as cheap as you can any where and save the freight if not more. Remember we will get you anything you want in case we should not have it in stock, either in sprayers or spraying material. Call and get or write for book on sprayers and spraying. It is free for the asking. Do you know that there is no better FRUIT COUNTRY than right here in Wapello County. Well it is a fact nevertheless. Our apples have a better flavor than those from any other state and would be just as fine and sell for just as high a price on the market, if we would take care of our orchards like they do in states where orchard land brings two thousand dollars (\$2,000) per acre. The gentleman Mr. B. M. Chapman who has charge of the now famous WENATCHEE Valley fruit exhibit at the recent fair at SEATTLE, WASHINGTON, was reared to manhood in this country, and he told the writer more than a year ago, that we had just as good a climate and CAN RAISE JUST AS GOOD APPLES as they can, and that ten acres (10) to apples right here in Wapello County would make a man rich here quicker than in the State of Washington, provided he would give it the same care and attention here that he would in Eastern Washington. So why go to hunt a better place when you have what you want right at home at much less than one-tenth the cost for land and seventy-five per cent less freight rate to get your fruit to market, and what it would take to move you out there, you would have for working capital.

There are several thousand acres of land around Ottumwa that is the best apple land in the United States, that can be bought from fifty dollars (\$50.00) to two hundred dollars (\$200.00) per acre. One word more as to climate, you must remember that all the famous apple orchards in Washington are east of the Cascade Mountains and it gets just as cold there as it does here. They have no advantage over us in climate but they beat us by spraying. They have state laws there that make you spray whether you will or not. Again did you know that Iowa took the GRAND PRIZE on APPLES at the recent great land show at CHICAGO over ALL COMPETITION from all over the United States. Well Iowa did just that, so really does it not look foolish to sell your good Iowa property under the existing conditions. If you want an apple orchard you can't do better than plant it right here in Wapello County.



TO OUR CUSTOMERS

We have opened a Store on the South Side, next door to the South Ottumwa Bank, for the benefit of our customers South of the river.

WE take pleasure in handing you our catalogue of seeds. In it we have endeavored to offer everything of merit that is best adapted to this locality, and have omitted those varieties which repeated tests have shown to possess little or no value.

We use every effort possible in the selection of our seeds, and feel justified in saying that all our seeds are the purest and best to be found, but at the same time, there being so many things beyond the control of man that spoil the best seeds and cause poor crops, that it is impossible to guarantee seeds. Therefore, while we exercise great care to have all seeds pure and reliable, we sell no seeds with warranty, expressed or implied in any respect, and are not in any way responsible for the crop. If the purchaser does not accept the seeds on these terms, they must be returned at once, and any money that has been paid for same will be refunded.

Prices of Seeds vary. We quote Market Values upon request and always give our customers the benefit of the lowest price that the market condition will warrant. Special prices on a general list will be given upon application. LET US HEAR FROM YOU.

ASPARAGUS.

Fr., *Asperge*. GER., *Spargel*.

Sow one ounce for sixty feet of drill. Sow in March or April, in rows one foot apart. When two years old transplant into permanent beds, which should be well and deeply manured, and trenched to the depth of two feet. Set the plants (in rows) from three to four feet apart, and two feet in the rows, spreading out the roots, and covering from six to eight inches. On the approach of winter cover with manure or compost; fork the beds early in the spring, and apply a dressing of salt. Cut for use the second year after planting in permanent bed.

ASPARAGUS SEED.

Columbian Mammoth White. A new and entirely distinct variety that produces shoots that are white, and remain white as long as fit for use.

Conover's Colossal. The standard variety: of large size, tender and of excellent quality.

Palmetto. It is of very large size, even and regular in growth and appearance. It is a very early sort, and immensely productive and of the best quality.

ASPARAGUS ROOTS.

These prices do not include postage. If to go by mail, add at the rate of 50c. per 100 for the 2-year-old plants.

Columbian Mammoth White. 2-year-old roots.

Conover's Colossal. 2-year-old roots.

Barr's Mammoth. 2-year-old roots.

Palmetto. 2-year-old roots.

Prices on any variety of 2-year-old roots: per 100, 75c.; per 1000, \$6.00.

BRUSSELS SPROUTS.

One Ounce of Seed to 100 Yards of Row.

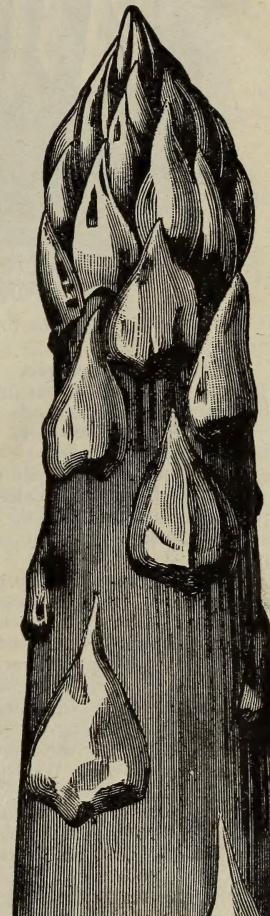
A variety of the Cabbage family, possessing the peculiarity of bearing upon its stem or stalk from 50 to 100 buds resembling miniature Cabbage heads. The leaves composing these heads resemble Savoy Cabbage in their crumpled texture and also in their color. The heads or buds, from 1 to 2 inches in diameter, form one of the most delicious garden vegetables, only equaled by the Cauliflower. Treat same as Cabbage. Autumn-grown Sprouts, drilled in May and transplanted in July generally do best, as the plants are quite hardy and the buds mellow under frost.

BROCCOLI.

One Ounce of Seed to 100 Yards of Row.

A plant much resembling the Cauliflower, and like it derived from the wild Cabbage. Broccoli requires a longer season to develop than Cauliflower. It has more numerous and stiffer leaves, and the heads are smaller.

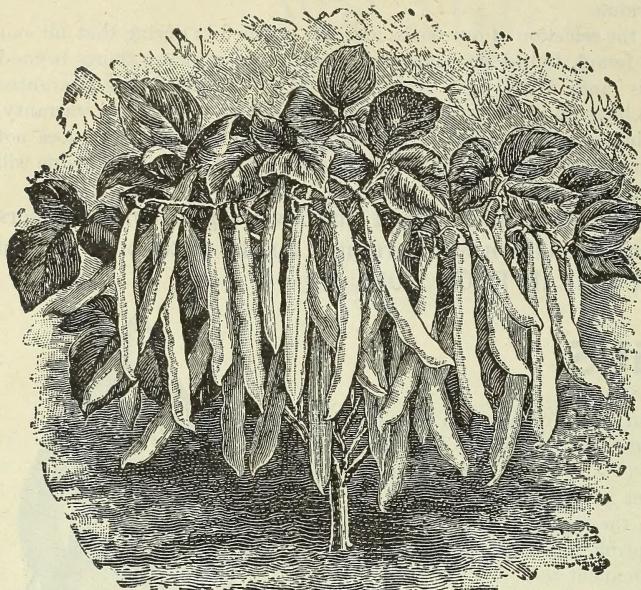
Large Early White. Large white head, resembling Cauliflower. We offer an especially fine strain of Early White Broccoli, and strongly recommend its more general culture.



ASPARAGUS.
CONOVER'S COLOSSAL.



BRUSSELS SPROUTS.



EXTRA EARLY RED VALENTINE

Extra Early Refugee. Very much earlier than the Old Style Refugee or 1000 to 1, being fit to eat in 48 days from planting. More dwarf and compact in growth, while the pods are round, solid, tender and of excellent quality.

Refugee or 1000 to 1. The vines are large, spreading, exceedingly hardy with small smooth leaves, very late and bear long cylindrical green pods of excellent quality. Highly esteemed for late planting and for use as Pickles.

Extra Early Red Valentine. Hardy, pods light green, and semi-transparent, round and slightly curved. Succulent, prolific, and quite free from strings, continuing long in an edible condition, 46 days from planting to first picking.

Early Mohawk. One of the oldest and best known sorts. The pod is green, thick, flat in shape, of fair quality, developing a slight string as it matures. Is ready to pick 48 days from planting, and will resist a slight degree of frost very successfully.

Burpee's Stringless Green Pod. This new bean produces a vine similar to Red Valentine, but develops pods to an edible condition in 42 days, about 4 days earlier than Valentine. The pods are green, not quite so round as Valentine and less curved. The pods are stringless, absolutely so, this quality at once placing the variety at the top of the list among table beans.

Long Yellow Six Weeks. The vine is large, vigorous, branching and productive, with large leaves. Pods long, straight, thick, flat in shape, green in color, of good quality when young and fair as they near maturity. Is ready for picking 45 days from planting.

Round Yellow Six Weeks. Very similar to Long Yellow Six Weeks as to vine, with pods shorter and much more thick and fleshy, about one week later, being ready for table 57 days from planting. Seed round, yellowish drab with a slightly darker marking about the eye.

Tennessee Green Pod. This dwarf snap bean, although new to the Seed Trade, has for several years been grown in the South, and wherever known is freely spoken of in terms of highest praise. Vine prolific, foliage dark green with leaves large and crumpled. Pods long, flat, irregular in shape, bright green, and of most excellent quality. Seed medium size, oval, flat, yellowish brown in color.

Dwarf Horticultural. Vines very productive, compact, upright, with large leaves. Pods medium length, cylindrical, curved, with splashes of bright red on a yellowish ground.

Large White Marrow or Mountain. Vines large, slender, spreading, with short runners and small leaves; beans large, clear white, ovoid, cooking very dry and mealy.

Navy. The Standard Shell Bean.

DWARF LIMA VARIETIES

Burpee's. The only bush form of the true, luscious, large lima.

Dreer's. The true bush form of the chubby Dreer's or Potato Lima.

Henderson's. This is a bush form of the small *Seiva* pole bean.

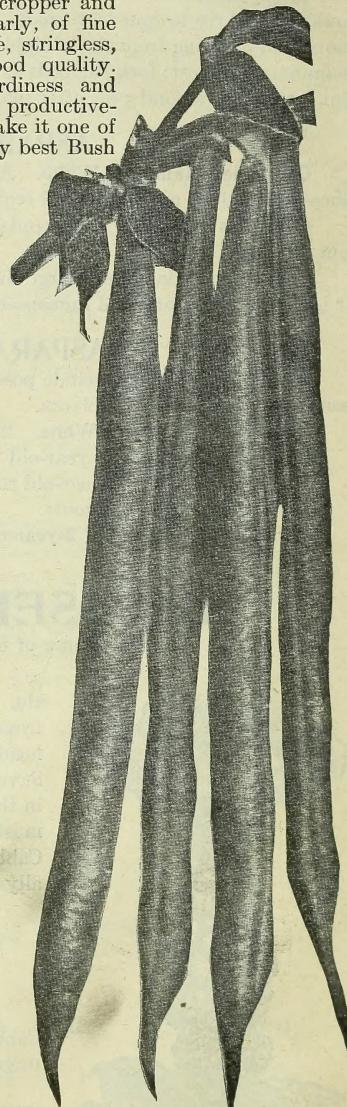
BUSH BEANS

GREEN POD VARIETIES

Black Valentine. This excellent variety is a great improvement over the old standard early Red Valentine, being one-third longer than that variety with pods perfectly round and straight and of excellent quality. It also has the additional advantage of being suitable for both early and late planting, and is extremely hardy. It will withstand early and late frost, is an excellent shipper, a large yielder, and of very handsome appearance.

Giant Stringless Green Pod. A very hardy, stocky vine, pods long, round and green in color, of exceptionally fine quality and stringless throughout its entire growth. About a week earlier than Red Valentine and much more prolific.

Bountiful Beans. This new green podded Bush Bean is a heavy cropper and very early, of fine shape, stringless, and good quality. Its hardiness and great productivity make it one of the very best Bush Beans.



BLACK VALENTINE

BUSH BEANS.

Wax Pods

Davis White Wax. This bean is adapted alike for the canner, market gardener, shipper or amateur. The dry bean is large, kidney-shaped, and white in color, making it one of the best for cooking in a dry state. Pods are long, meaty, flat in shape, and of a beautiful yellow color and fair quality.

Golden Wax. The old standard wax sort. Productive and early, with yellow semi-round pods of good quality, ready to pick 49 days from planting.

Improved Golden Wax. Rust proof, an improvement on the old style Golden Wax. Pod is semi-round, yellow, of good quality and has no string. Ready for picking 47 days from planting.

Keeney's Rustless Golden Wax. Combines hardiness and productiveness with fine quality. A strong growing bush variety of remarkable vigor and freedom from rust. The pods are meaty and well filled, thick, flat, when young and semi-round later; a very desirable variety.

Curries' Rust Proof Wax. An excellent Wax Bean in every respect. Rust proof, tender, thick flat pods of very good quality. Very little string in early stages, developing a little when nearing maturity. Fit for table use 47 days from planting.

Pencil Pod Black Wax. Pencil Pod Black Wax grows a taller, stronger and more vigorous bush than the Improved Prolific Black Wax, which is one of its parents. The other parent is the Round Pod Refugee or Thousand to One, and from this latter source the Pencil Pod Black Wax gets much of its vigor, hardiness and productiveness, and its long, slender, straight, handsome pod, shaped very much like a pencil.

Prolific Black Wax. The old standard Black Wax Bush Bean. It is so good that it is worthy of special notice. The pods are round, brittle, of handsome golden yellow color, and of buttery flavor when cooked.



IMPROVED GOLDEN WAX

Leopard Wax. A new wax variety bearing long, straight, flat pods, of a handsome, clear yellow color. The vines are vigorous, standing well up from the ground, the foliage affording good protection for the pods.

Refugee Wax. A perfect Refugee with Wax pods. Pods long, round, and of a golden yellow color. One of the earliest, quality excellent, and is fit for picking 57 days from planting. A very fine canning bean.

Wardwell's Kidney Wax. Hardy and productive, pods long, broad, thick, flat and of a delicate waxy yellow, of excellent quality and with no string in the early growth, ready for table 48 days from planting.

POLE BEANS.

Kentucky Wonder. Vine vigorous, climbing well and very productive, dry beans, long, oval, dun-colored.

Scarlet Runner. A great favorite, both ornamental and useful.

London Horticultural, or Speckled Cranberry. Beans large, ovate, splashed and spotted with wine red, and of the highest quality, either green or dry.

Red Speckled Cut Short. (Corn Hill) This is the best sort to plant in hills of corn.

Dutch Case Knife. Vines moderately vigorous, climbing well, but twining more loosely than some and so may be used for a corn hill bean.

Dreer's Improved Lima. Also called Challenger Lima, Thorburn's Lima, Potato Lima, etc. This is a bean of rather peculiar shape, being thick and plump rather than flat and oval.

King of the Garden Lima. This is the grand old standard market and family sort, which nothing can displace from public favor.

White Creaseback. This variety is especially valuable for its extreme earliness.

Lazy Wife. Immensely popular everywhere.

Small White Lima, Carolina or Sieva. Very early and productive, pods short, curved, thin, flat, beans white, small, kidney-shaped.

Large White Lima. The Large Lima is a general favorite.



WARDWELL'S DWARF KIDNEY WAX

TABLE BEETS

Crimson Globe. This is one of the finest beets yet introduced. Roots are not large, but very handsome. Round, and a clean, smooth surface. Leaves very small, with slender stems.

Early Egyptian. The well-known early variety. Color, extra dark, shape flat, quality excellent.

Bastians. An extra early variety, much esteemed by market men East and South. Color light.

Half Long Blood. One of the best for winter use. The roots are only half as long as the Long Blood, but weigh as much on account of their thickness. They are always smooth and handsome, and their rich, dark red flesh is very sweet, crisp and tender, never becoming woody, even in the exposed portions.

Long Smooth Blood. The standard long late sort. Very dark, blood-red flesh, quality fine.

Early Bassano. A good early variety, similar to Egyptian in shape, but of lighter color.

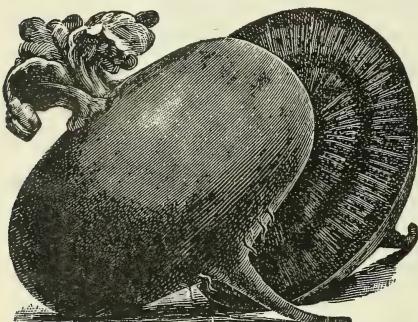
Swiss Chard, or Silver. Used for its leaves.

Edmand's Early Blood Turnip. The best sort for general crop. In quality one of the finest, exceedingly dark, shape globular, having only one tap root. Very popular with market men.

Improved Blood Turnip. An improved variety of the Early Blood turnip of deep, blood-red color; fine form and flavor. An excellent market sort.



CRIMSON GLOBE



CROSBY EGYPTIAN

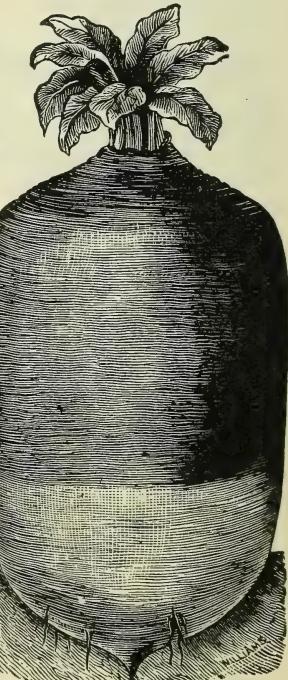
Crosby's Egyptian Beet. The name of this variety is misleading, as it resembles the Egyptian only in its extreme earliness. They are also more spherical than the Extra Early Egyptian and we think of better quality. One of the best for early planting out of doors.

Detroit Dark Red Turnip. Quality good, sweet and tender; color deep red; roots are turnip shaped, with small tap roots.

Dewing's Early Blood Turnip. A good variety for main crop. Keeps well. Like Edmand's, but lighter color.

Lentz Turnip. Of similar size and shape to the Bastian Turnip; top small. Early and profitable.

Early Eclipse. A very early maturing beet especially desirable for the home garden. Top of medium size. Root nearly globular, with a small tap and small collar. Flesh bright red, zoned with white, very sweet, crisp and tender, especially when young.



GOLDEN TANKARD MANGEL

CATTLE AND SUGAR BEETS

Sugar Beets, as well as Mangels, are most valuable for stock feeding.

There is no better paying root crop than either. They keep well, and, as a change of food, are excellent.

Five Pounds Will Sow One Acre

Long Red. A large, long variety grown for stock feeding. It stands up well above the surface; color light red; flesh white and rose colored.

Yellow Globe. Globular shaped roots. More productive than Long Red in shallow soil. Very nutritious and a good keeper.

Golden Tankard. Shape cylindrical, color deep rich yellow, flesh yellow circled with white. Unequaled for feeding stock.

Vilmorin's Improved Sugar. In general the most desirable beet for the factory is the one containing the largest percentage of sugar. In this variety we have one of the richest beets in cultivation; not only that, but it will do better on new lands, suffer less from an excess of nitrogen, and will keep the best of any. In size it is medium or little below, yielding from ten to sixteen tons per acre, and containing from 16 to 18 per cent of sugar.

Klein Wanzleben. A little larger than Vilmorin's Improved, yielding from twelve to eighteen tons per acre, and containing about the same amount of sugar. It grows below the surface, and the green leaves are rather large and spreading, with wavy edges. A little hardier, and easier grown than Vilmorin's Improved.



CHANTENAY CARROT.

Improved Long Orange. The most popular of the older sorts for farm use on mellow soil. An improvement obtained by years of careful selections of the best formed and deepest colored roots of the old Long Orange. Roots comparatively shorter than the Long Orange and smoother, but so uniform and true that the bulk of the crop will be greater.

St. Valery. A good late variety. It grows long, shape uniform, tapering from a wide shoulder to a point.

Large White Belgian. Grows one-third out of the ground. Root pure white, green above ground, with small top. Flesh rather coarse. The roots on light, rich ground, grow to a large size, and are extensively grown for stock feeding.

Prices of seeds vary. We quote Market Values upon request and always give our customers the benefit of the lowest price that market condition will warrant. Special prices on a general list will be given upon application.

LET US HEAR FROM YOU.

CARROTS.

Early Short Horn. A fine early variety, good for home use. Eastern market gardeners use this sort for bunching.

Guerande, or Ox Heart. Tops small for the size of the roots, which are comparatively short, but often reach a diameter of 7 inches, terminating abruptly in a small tap root. Flesh, bright orange, fine grained and sweet. This is a desirable variety for soil so hard and stiff that longer growing sorts would not thrive in it. When young, excellent for table use, and when mature equally good for stock.

Chantenay. Tops medium size; necks small; roots tapering slightly, but uniformly stump rooted and smooth; color, deep orange red; flesh very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any, is a heavy cropper, and is undoubtedly one of the best for both the market and private garden, while its great productiveness makes it very desirable as a field sort.

Danvers. Grown largely on account of its great productiveness and adaptability to all classes of soil. Tops medium sized, coarsely divided. The smooth and handsome roots are deep orange, of medium length, tapering uniformly to a blunt point; flesh sweet, crisp, tender and of a deep orange color. This is a popular field variety, and although the roots are shorter they produce as large a bulk as the longer field sorts and are more easily harvested.



DANVERS CARROT.



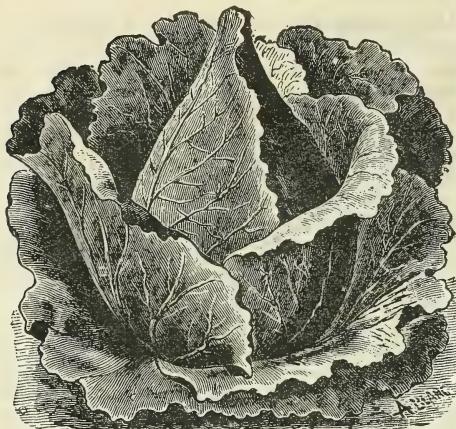
EARLY SNOWBALL CAULIFLOWER.

CAULIFLOWER.

Early Snowball. The leading cauliflower among cauliflower growers, and unquestionably the purest strain of "Snowball" cauliflower seed to be had. Heads uniform, of desirable market size and of snowy whiteness. After seven years' competitive tests it is pronounced by expert cauliflower growers to be the best for both early and late planting. Successful frame growers of cauliflower say that under glass culture our Snowball outclasses any strain of cauliflower seed known to them. This strain of ours is their favorites for early, for late and for forcing. Strong recommendations, surely.

Large Algiers. A valuable late sort sure to head, of the best quality, and very popular with market gardeners everywhere. Plant large, but of upright growth, the leaves protecting the heads so that they will endure uninjured a frost that would ruin other sorts. One of the very best of the late sorts.

CABBAGE.



EARLY JERSEY WAKEFIELD SELECT

Faultless Cabbage. The favorite second early cabbage. The product of this seed out-sells any other second early cabbage. It can be marketed in the early summer; during midsummer, in the fall and early winter, making it the best all purpose variety. It is popular alike with the grocer, kraut maker and shipper. It is possessed of earliness, large size, compactness, and will produce more salable heads to the acre than any other stock we know of.

Early Drumhead. This popular variety follows the Faultless in heading and is one of the most valuable varieties grown. It is ready for marketing two or three weeks earlier than the Late Drumhead, forms large solid rounded heads, withstands the heat remarkably well.

Louisville Drumhead. This fine cabbage is very popular with the kraut makers. It is a medium late variety, forming a large solid head, which seldom bursts. It is used largely by shippers in the vicinity of Chicago who ship cabbages south. It comes in between the second early and the late varieties.



PREMIUM FLAT DUTCH

Early Jersey Wakefield Cabbage. The most popular of the pointed head varieties. Exceedingly early, a good cropper, heads of good size, solid and uniform.

Early Spring Cabbage. The earliest flat head, nearly as early as Jersey Wakefield. Yields more than the early pointed heads. Solid, uniform and finely grained heads. Stem is short and extends but little into the head. Entirely free from any rankness of flavor.

Early Winningstadt. An early pointed head variety of excellent quality, not as early as the Wakefield but larger.

Henderson's Early Summer. A standard summer variety. Heads large and solid.

Fottler's Early Brunswick. An early fall variety, well known and popular.

All Head Early. One of the finest early flat-head cabbages.

Early York. A standard pointed head variety, second early.

Early Dwarf Flat Dutch. An early cabbage of good size. Heads are flat and very solid.



EARLY DRUMHEAD

Premium Flat Dutch. This variety of late cabbage is a standard in all sections for winter use. It makes a large solid head which keeps long without bursting, and is adapted to a more varied climate than probably any other variety we grow.

Large Late Drumhead. A late variety of large size.

Sure Head. A fine variety for main crop. A good shipper and sure header.

Holland. The favorite winter cabbage with market gardeners. It is as hard as a rock, and a small head will weigh as much as a large head of any other variety. The leaves lap over and make a head in which there is no waste.

Danish Ball Head. A good main crop variety; popular with many of the gardeners. Similar to Holland, but not so uniform in heading.

Improved American Savoy. Closely approaching the cauliflower in delicacy and delicious flavor. The best of all the Savoys for general market or home use. It has a short stump, grows to a large size, is compact and solid, and is a sure header.

Mammoth Rock Red. The largest heading of any red sort. Heads are hard, of deep red color, quality excellent.

Red Drumhead. The standard pickling variety. A good keeper.

CELERY

Golden Self-Blanching. The best self-blanching sort. It acquires a handsome golden color without having to be hilled up, which makes it a valuable market sort.

White Plume. A good self-blanching sort, good for fall use, but does not keep well.

Giant Golden Heart. This variety attains a large size, but still remains crisp and tender. It is a fine keeper and is the favorite on the Chicago market.

Kalamazoo. This is the variety used by the celebrated celery growers of Kalamazoo, Mich., and is of great merit.

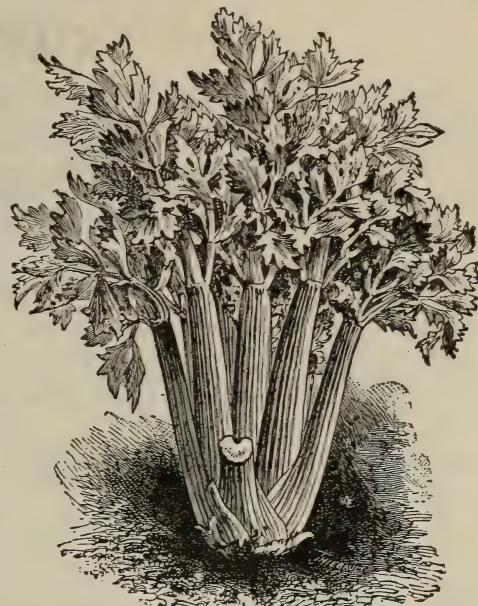
Perfection Heartwell. A finely flavored, good keeping sort, hardy and solid.

Crawford's Half Dwarf. The favorite variety in eastern markets; a good keeper of vigorous growth.

Pink Plume. Similar to White Plume, but having stalks suffused with pink.

Giant Pascal. This is the best keeper of all of the late sorts; very solid and crisp. This variety is unsurpassed for market garden.

Winter Queen. It has the strong robust growth of the Giant Pascal, but the plants, being only of medium height, are of better length for bunching for market as well as more desirable for serving on the table. Their compact habit makes considerably less labor in earthing up the plants to blanch, and the rows can be planted more closely in the field. Of vigorous growth, each plant makes a large number of fine stalks (magnificent large heart of rich golden yellow) which are broad, thick and heavily ribbed. Stored for winter it is an excellent keeper, and when taken out the blanched stalks are firm and crisp; entirely free from stings, brittle and of sweet flavor.



WINTER QUEEN



CELERIAC

for pickling size, two to three inches long, in sixty days.

Green Prolific or Boston Pickling. A favorite with pickle growers and commercial gardeners, and good for table use. Quite productive. Fruit small, uniform in size.

Early Cluster. Vines vigorous, producing the bulk of the crop near the root and in clusters. Fruit short, uniformly thick end, dark green, but paler at blossom end. A very productive sort.

Early Frame or Short Green. An excellent sort both for table use and for pickling. Fruit straight, handsome, smaller at each end, bright green; flesh tender and crisp, and makes fine pickles.

Nichol's Medium Green. A valuable and handsome variety, in shape between White Spine and Long Green. An excellent sort for pickles and useful for forcing. Very prolific. Fruit straight and smooth; color dark green, flesh tender and crisp.

Improved Long Green. Not so abundant a bearer as the preceding sorts, though recommended to all who put up their own pickles. Fruit long and slim, not surpassed in quality by any variety. This is not the ordinary Long Green but a much superior sort, being longer and of better proportion.

Evergreen White Spine. Is the most profitable cucumber for the market gardener. Best for the greenhouse, hot bed or for outdoor culture. The earliest and most productive variety. Long, straight, and of rich deep green color throughout, brings more money per dozen on the street than any other variety.

Early White Spine. One of the best sorts for table use. Vines vigorous, fruiting early and abundantly; fruit uniformly straight and handsome, dark green, with a few white spines; flesh tender and of excellent flavor.

GERMAN CELERY OR CELERIAC

Large Smooth Prague. Has a large smooth root, and is the finest of all celeriac.

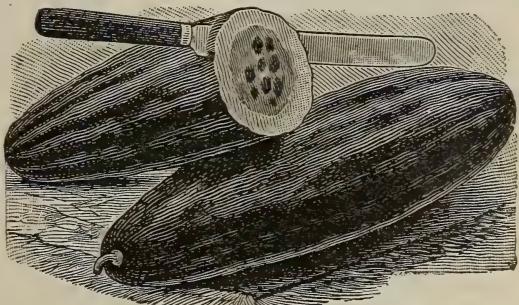
Apple Shaped. Not as smooth as the above but of good form.

Turnip Rooted. This is the ordinary and well known variety.

CUCUMBER

Chicago or Westerfield Pickling. A variety esteemed above all others by Chicago market gardeners, and grown extensively for the large pickling establishments in this vicinity. Fruit medium length, pointed at each end, with large and prominent spines. Color a deep green. It combines all the good qualities of an early cucumber.

Jersey Pickle. Sixty days to make pickles. It is productive and is said to "green" better than any other variety, and to "hold color." Early spring sowings will develop fruit in thirty days.



EARLY WHITE SPINE

SWEET CORN.

Mammoth White Cory. The ears are twelve rowed, white cobbed, and covered with very large white grains of good quality.

Early Cory Red Cob. This variety is the favorite for first early, and no other variety has proved earlier.

White Cob Cory. This is an improvement over the Early Cory, as the cob is white, which gives it a finer appearance. It is as early as the Early Cory and of excellent quality.

Chicago Market or Ballard. This is the largest and best early corn in existence, twelve rowed, white cobbed and of exceedingly fine quality.

Premo Sweet Corn. A "sixty-day" sweet corn, and is thus described by the originators: "It not only combines all the merits of the leading early varieties, but it is also really superior to them all in size, quality and yield. Premo can be planted fully as early as the Adams, for the young plants withstand slight frosts. The stalks grow about 5 feet high and are very vigorous, generally bearing two well-developed ears to a stalk."

Peep O'Day Sweet Corn. This variety is claimed to be the earliest sweet corn. It is of Minnesota origin and has been offered in the Minneapolis market from five to seven days earlier than any other well known kind in the trade. Ears 5 inches long, perfectly formed, well filled.

Extra Early Adams. This is an extra early field variety, but is much used as an early market variety, being sweet and juicy.

Early Minnesota. One of the standard early sorts. Ready for market two weeks later than Cory or Chicago Market.

Perry's Hybrid. An early variety of splendid quality. Kernels tinged with pink when ripe, with white cob.

New Champion. This corn is unsurpassed for market use, owing to its large size and fine appearance. It is medium early, coming in at the same time as Perry's Hybrid. It is fourteen rowed and a splendid cropper. All should try it.

Moore's Early Concord. A well known early variety of large size, twelve rowed and of excellent quality. This makes a fine market corn.

Kendall's Early Giant. A valuable early sweet corn. The ears grow to a tremendous size, measuring eight to ten inches long, and having ten to eighteen rows on each cob, the majority having twelve rows; kernels pure white; sweet, tender.

Crosby's Early. An early corn of large size and choice quality. It has long been a standard variety.

Metropolitan. A new early sort, only a few days later than Cory. The ears are about 9 inches in length, 10 to 12 rowed, well filled to the tip with large, deep kernels, which are very sweet and tender.

Country Gentleman. There is no sweet corn that compares with the Country Gentleman for sweetness. It is the variety par excellence where quality is desired. Market gardeners who make a specialty of growing for hotels and high class restaurant trade use this as a main crop variety in preference to any other.

Egyptian or Washington Market. A standard variety, in season between Evergreen and Mammoth Sugar. Very sweet and well adapted for canning.

Mammoth Sugar. A large late variety having ears of mammoth size, 14 to 20 rows. Quality excellent, not exceeded by any variety. A good canners' variety, being white grained and very uniform. A week later than Stowell's Evergreen.

Black Mexican. This corn, when in condition for the table, cooks remarkably white; but the ripe grain is black or bluish-black. It is surpassed by none in tenderness. For family use it is considered by many the most desirable of the medium late sorts. It does especially well for second early in the south.

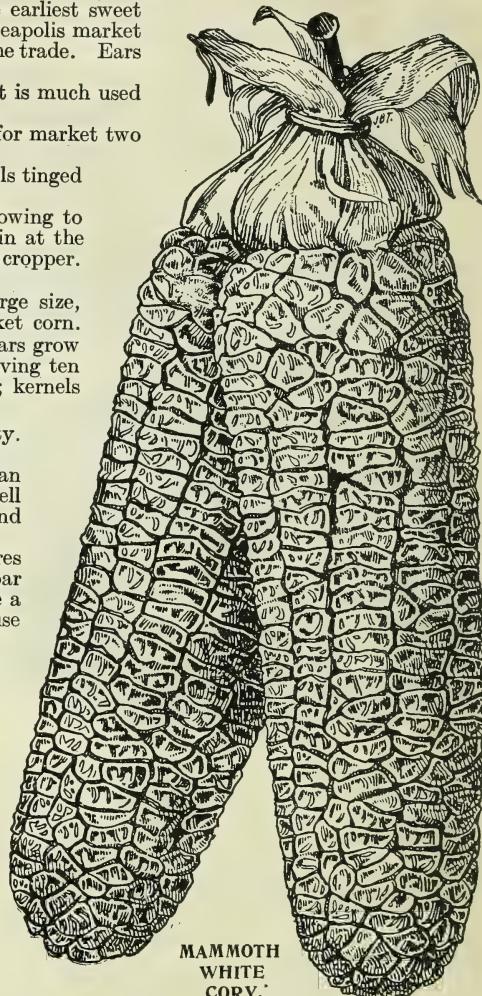
Old Colony. This variety is two weeks earlier than the Evergreen, and almost as large. It is considered the best and sweetest by canning factories. A fine paying variety for market.

Hickox Hybrid. Earlier than Stowell's Evergreen, and makes a large, attractive ear of very white and handsome grain. It is one of the best varieties for canners' use. By planting it at the same time as Stowell's Evergreen the season will be lengthened considerably, as the Hickox will be about through by the time Stowell's Evergreen comes in.

Early Evergreen. The ears of this new corn grow 8 inches long, are mostly 14 to 18 rows. This is a magnificent kind for market gardeners and for main crop in every home garden. It ripens 10 to 12 days in advance of Stowell's Evergreen and is equally as good for all purposes. The kernels are very sweet and tender, and when eaten from the cob break off free from husky tips so common to some otherwise fine table corns. Remaining green a long time, two plantings will extend the season until frost.

Zigzag Evergreen. This fine new strain possesses the distinct characteristics which have made Stowell's Evergreen so deservedly the favorite for main crop, but produces ears fit to use from one week to ten days earlier.

Stowell's Evergreen. This standard main crop variety excels all other late sorts in sweetness and productiveness. It is more popular than any other for canning, for marketing and for the home garden. Great care has to be exercised in the selection of stock to grow seed from, as this variety has a tendency to deterioration and a shorter grain, which makes it less sugary and desirable.



MAMMOTH
WHITE
CORY.



CORN SALAD.

Fetticus, or Lamb's Lettuce. This small salad is used during the winter and spring months as a substitute for lettuce, and is also cooked and used like Spinach. In warm weather the plants will mature in four to six weeks. Sow the seed in shallow drills about one foot apart. If the soil is dry it should be firmly pressed over the seed in order to secure prompt germination. On the approach of severe cold weather, cover with straw or coarse litter. Like most salad plants, greatly improved if sown on very rich soil; indeed, the ground can scarcely be made too rich for them.

CRESS.

Curled, or Pepper Grass. This small salad is much used with lettuce, to the flavor of which its warm, pungent taste makes a most agreeable addition. The seed should be sown in drills about sixteen inches apart.

True Water. This is quite distinct from the last, and only thrives when its roots and stems are submerged in water. The seed should be sown and lightly covered in gravelly, mucky lands along the borders of small, rapid streams. The plants will need no subsequent culture, as under favorable conditions they increase very rapidly by self-sown seed and extension of roots.



TRUE WATER CRESS

COLLARDS.

Georgia, Southern or Creole. A variety of cabbage known in different sections as "Cole," "Colewort," or simply "greens." It is extensively used in the south, where it continues in luxuriant growth all winter.



CHERVIL

CHERVIL.

A hardy annual, worthy of more general use for flavoring and garnishing.

Sow in early spring in rich, well prepared soil, and when plants are well established transplant to about one foot apart.

Curled. Greatly superior to the old, plain variety, being earlier, more handsome, and having fully as fine perfume and flavor.

CHICORY.

Large-Rooted, or Coffee. The dried and prepared roots are used quite extensively as a substitute or adulterant for coffee. Sow the seed as early in the spring as the ground can be prepared, in rather light, moderately rich

soil, in drills fifteen inches apart for garden, and two to two and one-half feet for field culture. When the plants are sufficiently large, thin to four to six inches apart in the row. Where the roots are grown in quantity for the manufacturers of the "prepared" chicory, they are usually brought to the factory in the "green" state and there dried in kilns constructed for the purpose.

DANDELION.

The dandelion is a hardy perennial plant, resembling endive, and affords one of the earliest and most healthful spring greens or salads. Sow early in spring in drills 12 inches apart, and thin out to 6 inches in the drills.

Broad Leaved.

Improved Thick Leaved. An improved thick-leaved variety.

EGG PLANT.

Improved New York Purple Spineless. Very large and smooth, fine dark color. Ours is the spineless plant, most preferred by our market gardeners, both east and west.

Black Pekin. A fine variety, bearing large, round, deep, purple fruits fine grained, and of superior quality.

Early Long Purple. Early, hardy and productive; excellent for the table.



EGG PLANT

ENDIVE.

One of the most refreshing and attractive of all autumn and winter salads. Sow seed from the middle of June until the end of August.

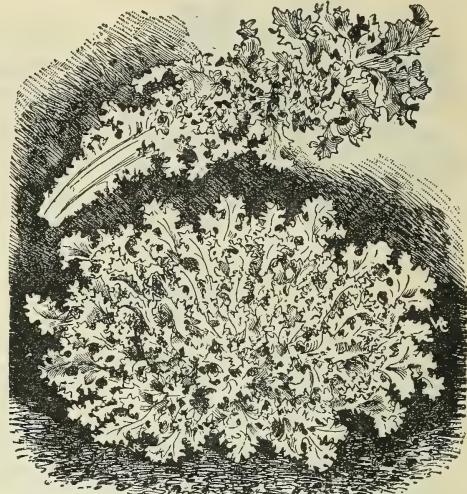
GER., Endivien. FR., Chicoree. SP., Endivia.

Green Curled. Beautifully curled, tender and crisp.

Moss Curled. More finely curled, and a heavier and more dense plant than Green Curled.

White Curled. Very tender when cut young; blanches readily.

Broad-Leaved Batavian. (Escarrole.) This variety is chiefly used in soups and stews; requires to be tied up in blanching.



CURLED ENDIVE.



CURLED SCOTCH KALE.



LARGE FLAG LEEK.

AROMATIC, MEDICINAL AND POT HERBS

Most of the varieties thrive best on rich, sandy soil, which should be carefully prepared and well cultivated, as the young plants are for the most part delicate and easily choked out by weeds. Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart, taking pains that the soil is fine and pressed firmly over the seed; or they may be planted as a second crop, the seeds sown in beds in April, and the plants set out in June. Most of them should be cut when in bloom, wilted in the sun and thoroughly dried in the shade.

Annis.	.....
Caraway	.....
Coriander	.....
Dill.	.....
Horehound	.....
Sweet Marjoram	.....
Sage—Broad Leaf	.....
Saffron.	.....
Savory, Summer.	.....
Thyme.	.....

KALE.

One ounce of seed will sow a drill of about 200 feet.

Siberian Kale, or Winter Sprouts. This is also called German Greens and is sometimes sold for Dwarf Green Curled Kale, but it is not as curly as the Dwarf Curled Kale and is different from it in color. The leaves are smooth in the center, having a fringed edge. Color has a bluish tinge, not the deep green of the Dwarf Curled Kale.

Dwarf Green Curled German. Leaves yellowish green, very compact and beautifully curled; sow in September for winter and early spring use.

Dwarf Curled Scotch. Leaves bright green, curled, very tender and fine flavored; an excellent sort for private gardens.

KOHL=RABI.

One ounce of seed will sow a drill of about 150 feet.

Earliest Erfurt. A white tender variety, with a smooth root and very short top; the best variety for outdoor culture.

Early Short Leaved White Vienna. The finest for market. Flesh white and tender.

Early purple Vienna. Bluish purple; similar to the above, except in color.

LEEK.

Large American Flag. Large, hardy and of excellent quality.

Giant Carentan. The favorite market variety, large, thick stem, of mild flavor and attractive appearance.

Musselburgh. Grows to a very large size, with broad leaves, spreading like a fan; hardy, of excellent quality.

London Flag. An old and popular sort; one of the hardiest and best for winter use.

MARTYNIA.

The Martynia, or Unicorn Plant, is quite ornamental in growth, quickly forming large bushes and bearing handsome gloxinia-like flowers. When young and tender the seed pods make excellent pickles.

Martynia Proboscidea. The best variety for pickles.



BLACK SEEDED SIMPSON LETTUCE

Early Curled Silesia. A very tender sort, with fine curled leaves. Pkt., 5c.; oz., 10c.

Boston Curled. Curled leaves of good quality, a popular variety among eastern growers.

Prize Head. The leaves are very large, crimped, bright green tinged with brownish-red and are exceedingly tender, crisp and sweet, forming a large loose head.

Hanson. Heads large, hearts quickly and stands the summer well; quality excellent.

New York. The large white heads resemble cabbage in their solidity, and frequently weigh two and three pounds each. The quality is superb, being crisp, rich and tender. It withstands the heat well, making a fine variety for all seasons.



NEW YORK

Big Boston. This variety is identical in color, shape and general appearance with the famous Boston Market lettuce, but is double the size. It is about one week later in maturing, but its solidity and greater size of head will make it a most valuable sort. A most desirable variety, either for forcing in cold frames or open ground planting.

Hubbard Market. A large heading variety, good for either forcing or sowing in open ground.

St. Louis Head. The most popular and satisfactory head lettuce with market gardeners. It forms a fine head, is tender and crisp, and is very slow to run to seed. Outer leaves are light green, and the inner ones are bright, creamy yellow, of a very fine flavor. Altogether, we recommend it as being the best head lettuce for general use.

All Seasons. One of the best all head lettuces, standing the hot sun better than any other sort. Slow to seed.

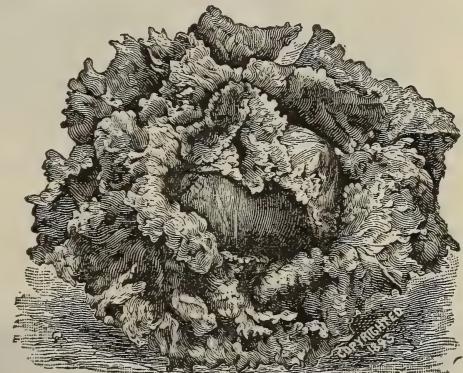
LETTUCE.

Black Seeded Simpson. This is the most popular early sort on the market. Forms large, loose heads. Leaves thin and exceedingly tender, of light green to golden yellow. Best sort for forcing or outdoor early planting.

Early Curled Simpson White Seed. Forms a close, compact mass of curly yellowish green leaves. Good for cold frames or early planting for outdoors.

Grand Rapids Forcing. Preferred by a great many to the Black Seeded Simpson, on account of being a tougher leaved lettuce. This makes it a fine sort for shipping, as it does not break so easily, and stands longer without wilting.

Paris White Cos. The Cos lettuce differs entirely in shape from the other varieties, the head being elongated and of conical form, eight or nine inches in height, and five or six inches in diameter. To be had in perfection it requires to be tied up to insure blanching.



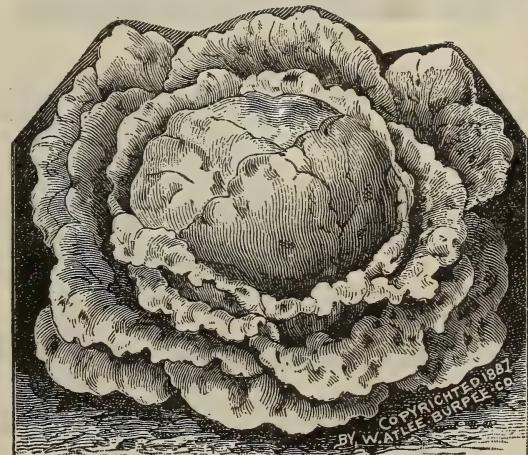
HANSON

The Deacon. A magnificent butter head lettuce. It stands the hot weather without becoming bitter or running to seed, and bears fine, large heads of superb quality. Light green outside, and within a beautiful cream yellow of delicious rich, buttery flavor. Highly recommended for home or market use.

Early Tennis Ball, White Seed. A good early sort, and used largely by eastern gardeners for forcing.

Early Tennis Ball, Black Seed. A good lettuce for early use. The heads are small, but are very crisp and solid.

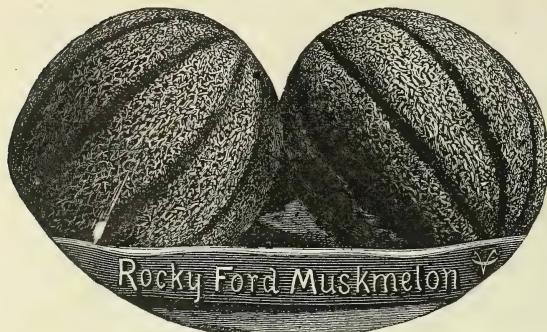
California Cream Butter. A grand, good butter lettuce. The heads are of good size, round and solid; outside, medium green; within, the leaves are a rich cream yellow color. Rich and buttery in taste.



BIG BOSTON

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MUSK MELON.



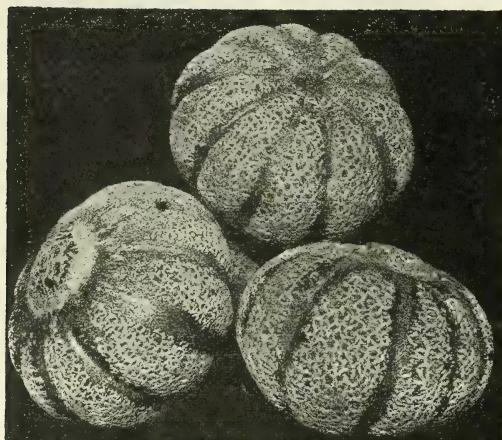
Rocky Ford Musk Melon

Early Hackensack. A green fleshed nutmeg, of excellent form. A very early and splendid melon.

Hackensack. A large, deeply netted melon, flattened at the ends, of most delicate flavor and very productive.

Chicago Market. Fruit large, round or slightly oval, with very shallow depressions and covered with dense netting. Flesh green, medium texture, very thick and sweet. The variety is an improvement on Montreal, and will suit those who like a large, sweet, green fleshed sort.

Paul Rose. A new sort, possessing several characteristics of the Osage; form slightly oblong, distinctly ribbed, slightly netted; color, when unripe a deep green, turning a golden tint; flesh salmon, and so thick as to show an unusually small seed cavity; flavor like Osage.



JENNY LIND

Osage, or Miller's Cream. A remarkably fine variety, and a very profitable sort for market gardeners, as it is fully established as a standard sort and will ever remain so. It is of medium size, oval in form, dark green in color, handsomely netted and slightly ribbed. The flesh is extremely and uniformly thick, of firm texture, rich salmon in color, highly flavored and delicious to the rind.

Emerald Gem Melon. The Emerald Gem melons are about the size of the Netted Gem, but, unlike that variety, the skin, while ribbed, is perfectly smooth, and of a very deep emerald green color. The flesh is of a suffused salmon color, and ripens thoroughly to the thin green rind, which is distinctly defined.

MUSHROOM SPAWN.

For the money invested, no more profitable crop. Once started, it is easy to continue. The supply never equals the demand, so that a market is easily secured.

English. 1 lb. Bricks.

Rocky Ford. This new musk melon is similar to the oval strain of Netted Gem. The strain here offered originated with the melon growers in the vicinity of Rocky Ford, Colorado, who have shipped this melon from that distant western point to eastern markets. The melons grown by them are so fine in quality as to outsell all others, and the demand for such melons has been far beyond the supply.

Skillman's Netted. An excellent early melon, with fine tender flesh.

Netted Gem. The best early melon known. Shipped to every market of note, in great quantities, every year. Medium size, but of excellent flavor.

Jenny Lind. A good early melon.



CHICAGO MARKET MUSK MELON

Tip Top. A new melon of recent introduction and very deserving. All who have tried it have pronounced it one of the finest. Flesh yellow and sweet.

Surprise. This old variety is still highly esteemed. Fruit nearly round, but slightly lobed and netted. Skin yellowish white. Flesh, deep salmon color, very sweet and high flavored.

The Princess. In shape nearly round, with heavy netted dark green skin. The flesh is salmon color, thick, sweet and luscious.

Burrell Gem. The originator says: "The new **Rocky Ford** Melon with **Golden Meat**." This describes the melon fully, as in appearance it looks just as the best types of Green fleshed Gems do.



THE OSAGE MUSK MELON

WATER MELON.

Sweet Heart Water Melon. This new melon is early, large, handsome, heavy and productive. The shape is oval and the color mottled light to very light green. Flesh bright red, solid, but tender and very sweet. We have a very fine stock grown from selected stock seed procured from the originator, hence it is as pure and true as the original.

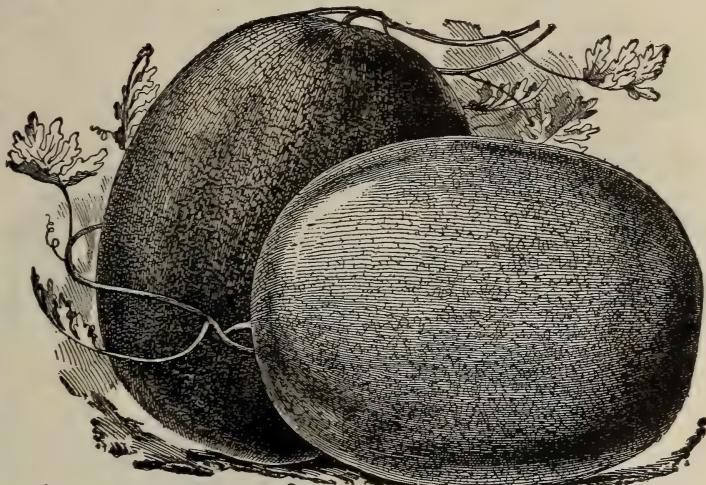
Black Spanish. Large, roundish, nearly black; dark red flesh; early.

Florida Favorite. A very large, long melon mottled dark green with stripes of lighter shade. Rind thin but firm; flesh very bright, deep red, very sweet, tender and excellent. A very popular variety in the south.

Cole's Early. Very hardy, a sure cropper and extremely delicate in texture of flesh, which is of dark red color; rind is thin and extremely brittle, hence not desirable for shipping purposes, but possessing all the other most desirable features. We highly recommend it for home use. Medium size, nearly round; rind green striped with lighter shades.

Dixie. A popular market sort, vine vigorous, large growing and hardy; fruit medium sized to large, about one-third longer than thick. Color of skin dark green, striped with a lighter shade rind, thin but tough; flesh bright scarlet, ripens closely to the rind, is of the best quality and free from the hard, coarse center which is so objectionable a feature of many shipping melons.

Phinney's Early. Few, if any, of the early sorts of recent introduction surpass this old favorite. It is first to ripen, of good size and productive; shape oblong; rind a distinct mottled color; the flesh is a deep red; a first-class early market melon.



SWEETHEART WATER MELON.



MONTE CRISTO.

Vick's Early Peerless Triumph McIver's Sugar
Dark Icing Jumbo Cuban Queen Duke Jones

Gypsy, or Georgia Rattlesnake. One of the largest varieties and stands shipment long distances. Fruit cylindrical, square at the ends, smooth, distinctly striped and mottled light and dark green. Flesh bright scarlet and very sweet.

Ice Cream. Medium sized with very sweet, scarlet flesh. A good variety for main crop.

Kolb's Gem. Vines of medium size, but remarkably vigorous and healthy. Leaves of medium size, deeply cut with a peculiar frilled edge. Fruit of the largest size, round or slightly oval, marked with irregular mottled stripes of dark and light green. Outer rind or shell exceedingly hard and firm, making it a good sort for shipping long distances. Flesh bright red, solid, a little coarse, but sweet and tender.

Monte Cristo. A splendid sort. Vine vigorous and productive. Fruit of medium size; oval; color dark, mottled green in two shades, forming indistinct stripes.

Kleckly Sweets The Boss Light Icing
Red Seed Citron Green Seed Citron

ONION SETS.

Onion Sets. Onion Sets should be planted as early in the Spring as convenient, to obtain early green onions, but they may be set at any time up to June 1st. Sets in rows a foot apart and three to four inches between them in the row. Any good soil will suit them. When grown in quantity, high cultivation is given in order to forward the crop for an early market. They are ready for use as soon as the bulbs begin to be of fair size. Those not used in green condition will ripen early in July and make nice Onions. Potato and Top Onions are grown from bulbs only, growing in clusters. These clusters are separated and the smaller ones kept for seed. There is no crop which pays better than the first load or so of green onions in the market. Onion Sets will make this crop for you. Why not grasp the opportunity offered? Our Sets are carefully grown and choice; they will give the largest returns for the money invested if the product is sold, or excellent green onions for home use at a time when a fresh green vegetable is needed.



Red Bottom Sets
White Bottom Sets
Yellow Bottom Sets
Genuine Top Sets
Winter Top Sets
Potato Onions
White Multipliers
Shallots
Yellow Multipliers

ONION SETS.

CHOICE ONION SEED.

Extra-Early Red. The earliest variety. Very popular with market gardeners to sell in the early fall. Quality choice, of mild taste.

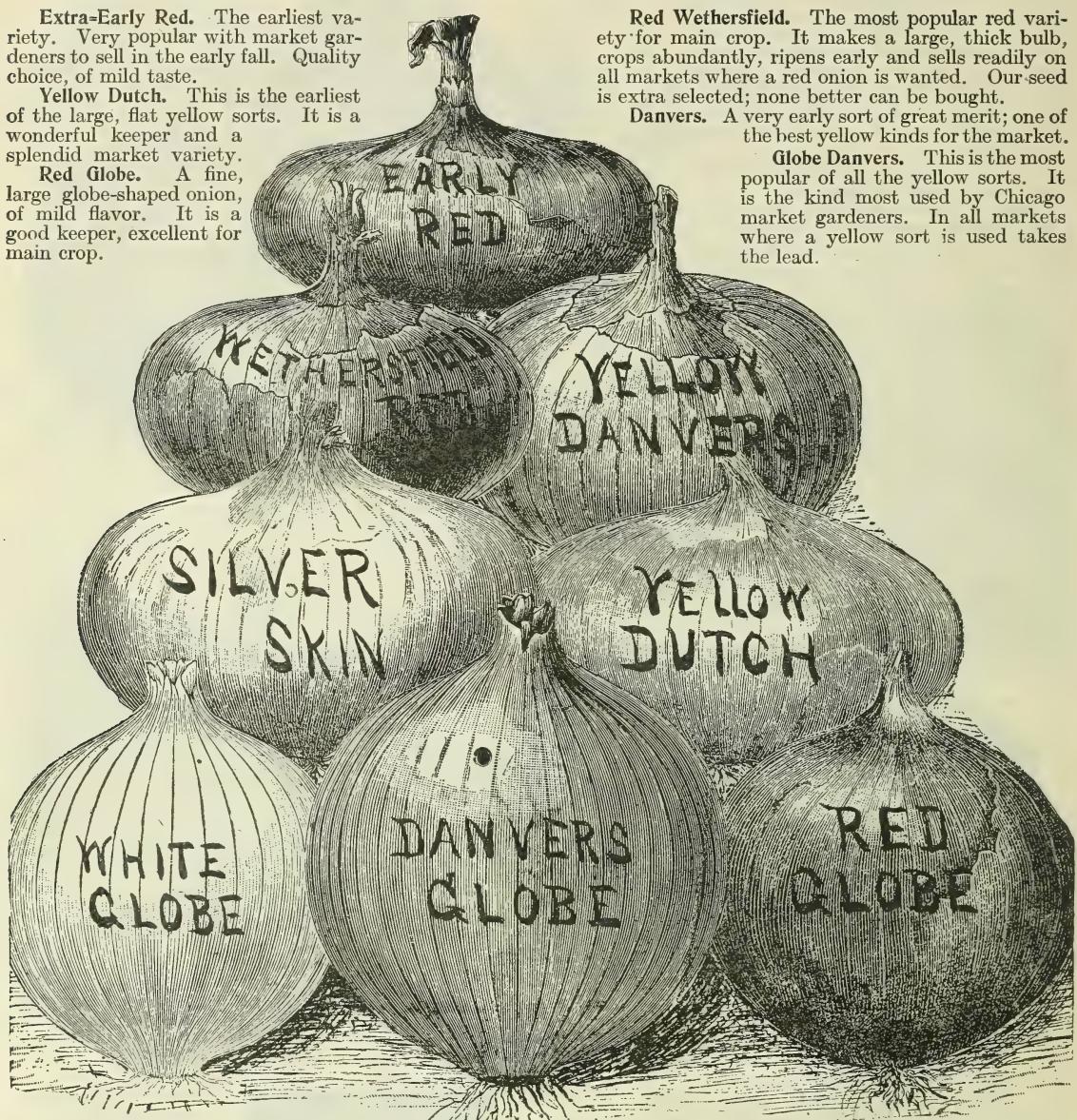
Yellow Dutch. This is the earliest of the large, flat yellow sorts. It is a wonderful keeper and a splendid market variety.

Red Globe. A fine, large globe-shaped onion, of mild flavor. It is a good keeper, excellent for main crop.

Red Wethersfield. The most popular red variety for main crop. It makes a large, thick bulb, crops abundantly, ripens early and sells readily on all markets where a red onion is wanted. Our seed is extra selected; none better can be bought.

Danvers. A very early sort of great merit; one of the best yellow kinds for the market.

Globe Danvers. This is the most popular of all the yellow sorts. It is the kind most used by Chicago market gardeners. In all markets where a yellow sort is used takes the lead.



Southport Yellow Globe. This is a large, handsome yellow variety. Shape, perfectly globular; quality fine. A splendid keeper. Becoming very popular.

White-Portugal. The best white sort for pickling or ordinary uses. It is one of the best keepers of the white varieties.

Silver Skin. Very desirable for family use. Flavor mild and pleasant. Skin silvery white.

Australian Brown Onion. Is of medium size, wonderfully hard and solid, and most attractive for market, both as to form and appearance. The color of the skin is a clear amber brown. So widely contrasted from any other onion is this color that it will be noticed on the market, and when once bought, purchasers will be likely to return and call again for "those beautiful brown onions."

Prizetaker. Grows to an immense size and for fall

marketing is unexcelled. Handsome bulbs of a rich yellow color and fine globe form.

White Globe. A very handsome onion, of splendid quality. Keeps well. It has a good, strong flavor. The best sort for early green onions from seed.

Extra Early Pearl. A very fine Italian variety that grows quickly to a good marketable size. Very popular, particularly in the south. The bulbs are round, flattened, with a delicate, pure white skin. Flesh very mild and pleasant in flavor. It is claimed to excel most other onions of Italian origin in keeping qualities.

New White Queen. Is a fine early silver skinned variety, of beautiful form and rapid growth, and possessing fine keeping qualities. Seeds sown in early spring will produce onions from one to two inches in diameter in early summer, or if sown in early summer will be fit for use by autumn.

OKRA OR GUMBO.

This vegetable is too little grown, as its green pods impart a fine flavor and consistency to soups and stews; the pods can also be dried for winter. It is universally used throughout the south, and is as easily raised in the north. So delicious is the flavor that when once used it will be grown every year.

Lady Finger. The plants are uniform in growth, and with their large hibiscus-like flowers make a pretty sight. The plants produce long, slender pods.

Dwarf Prolific or Density. A fine new variety, much dwarfer than the ordinary dwarf okra, and much more productive. Short, thick pods.

White Velvet Okra. The pods are perfectly round, smooth and of an attractive white velvet appearance; of superior flavor and tenderness.

Tall Green. A favorite at the south; called also Perkins Mammoth Long Pod.

Send the address of your friends who are interested in a good garden and they will receive a copy of this catalogue.



CHAMPION MOSS CURLED



OKRA

PARSLEY.

Double Curled. The standard sort for outdoor culture, also highly prized by market gardeners for the greenhouse.

Champion Moss Curled. A very fine curled variety. One of the handsomest for garnishing purposes. The exceedingly curled leaves make it desirable.

Fern Leaved. This sort has a peculiar, fern shaped leaf. It is not so desirable as the more curled sorts.

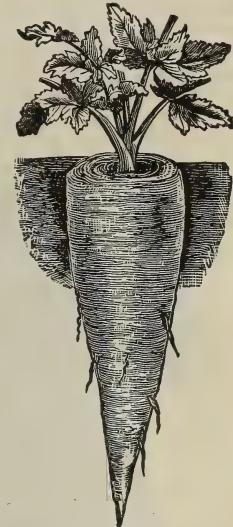
Hamburg Rooted. The standard rooted sort. The leaves are used for soup, greens, and the roots, when sliced, are much esteemed.

PARSNIP.

Long White Dutch or Sugar. Roots very long, white, smooth, tender, sugary and of most excellent flavor. Very hardy, and will keep through winter without protection.

Hollow Crown. Roots comparatively short, with a very smooth, clean skin. The variety is easily distinguished by the leaves arising from a depression on the top or crown of the root.

Guernsey. The best sort for heavy, black soils. In the vicinity of Chicago, where the soil is exceedingly rich, this is the variety needed, as it makes a fine shaped root which does not grow too long.



HOLLOW CROWN
PARSNIP

PEPPERS.

Sweet Mountain. Plants very vigorous and productive, growing upright, with moderately large leaves. Fruit very large, long, often eight inches or more in length, by two in diameter.

Large Bell or Bull Nose. A very large sort of inverted bell shape, suitable for filling or for mixed pickle. Flesh thick, hard and less pungent than most other sorts.

Proopp's Giant. Very large, usually 8 to 9 inches long and 3 inches thick. Brilliant scarlet color, flesh thick, of pleasant flavor.



BELL, OR BULL NOSE

Ruby King. An improved American sort, reaching the largest size, yet retaining the symmetrical shape of the smaller sorts.

Large Squash. Fruit large, flat tomato shaped, more or less ribbed, skin smooth and glossy.

Golden Upright. The fruits are large and of a beautiful rich golden yellow, tinged with blush red. The peppers are mild and as pleasant to the taste as Ruby King.

Red Cherry. Plant tall, bearing a profusion of bright, red, round fruit which is very pungent when ripe. The plant is very handsome and an ornament to the garden.

Chinese Giant Pepper. Without doubt one of the very best and largest Mango Peppers ever introduced. Its mammoth size, splendid shape, beautiful, rich, glossy-red flesh and mild flavor, all lead us to speak of it in words of commendation.

Golden Dawn. In shape it resembles the popular Bell or Bull Nose Pepper. It is of a most beautiful golden yellow color, making a very handsome appearance, both in growth and upon the table.

Red Chili. Used in the manufacture of pepper sauce.

Long Red Cayenne. A long, slim, pointed pod, and when ripe, of a bright red color. Extremely strong and pungent.

PEAS.

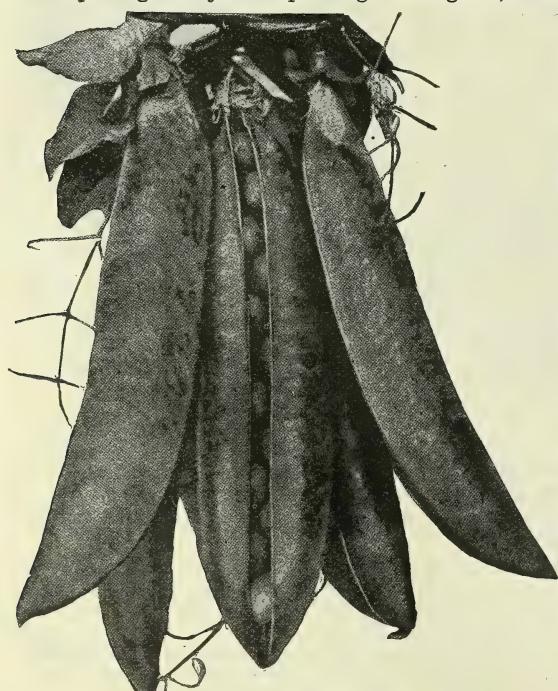
Alaska. Well known and extensively used, especially by Canners. Very early, and when carefully grown, uniform in ripening. Vine is strong and vigorous, 2 to 2½ feet high, of a peculiar light green color; pods 2½ to 2¾ inches long, straight and blunt at the end, and light in color. Is ready for picking 49 to 50 days from planting. Seed round, blue, slightly pitted.

First and Best. Early, productive and hardy, with a strong, vigorous vine, which is light in color and uniform in growth, 2½ to 3 feet in height and bearing straight pods 2½ to 2¾ inches long, round, light in color, and blunt at the ends. Is fit for table use 50 to 52 days from planting. Seed round, rather small, and white in color.

Tom Thumb. A round seeded Pea, dwarf in habit, and desirable for garden culture, early and prolific, growing about one foot high, bearing pale green pods about 2½ inches long, round, nearly straight, and well filled with peas of rather poor quality. Is fit to pick 56 days from planting.

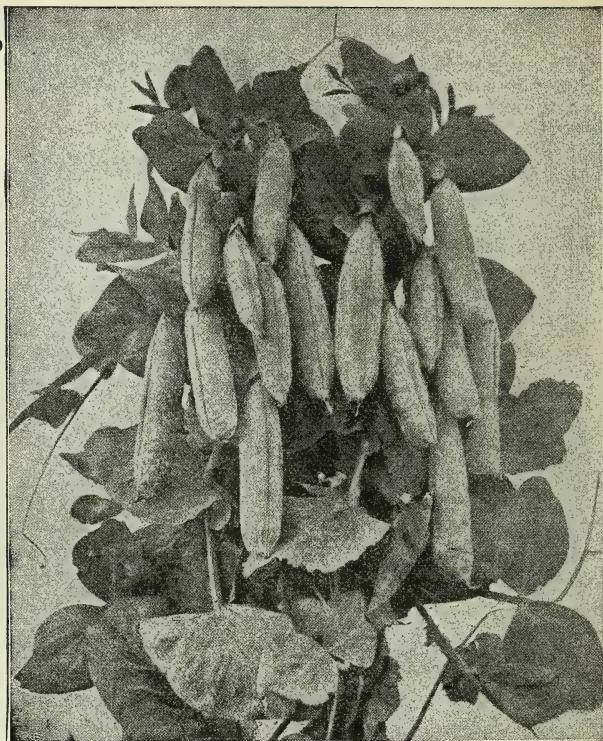
American Wonder. Vigorous, productive vines, with a luxuriant foliage, and producing the leaves on one side of the stalk, and growing from 9 to 12 inches high. On account of its dwarf habit of growth it is very desirable for private garden use. Pods are light colored, straight, round, about 2½ inches long, and blunt at the end. Fit for picking 55 days from planting. Seed is wrinkled, green, medium in size and square at the ends.

Nott's Excelsior. Resembling Gems in habit, but more dwarf and uniform in growth, height, 12 to 17 inches, with rather light foliage. Pods are light in color, round, about 2½ inches long, blunt at the ends. Fit for picking 56 days from planting. Seed green, wrinkled, medium in size and square at the ends.



DWARF TELEPHONE

pods light colored, straight, about 2½ inches long and blunt. Fit for picking 68 days from planting. Seed green, wrinkled, medium in size. A very popular pea with the canners and market gardeners, on account of its excellent quality, being as sweet as Telephone and very much more tender.



ALASKA

William Hurst. Resembling American Wonder in habit, but more straggling and uneven in growth. Height, 16 to 18 inches, foliage dark. Vigorous and productive, bearing in profusion, long, curved pods, medium green in color, about 3 inches in length, fit to pick 57 days from planting. Seed green, wrinkled, medium in size.

Gems. Strong and vigorous in growth, producing vines from 18 to 24 inches in height, dark foliage, bearing pods singly on both sides of the stalk, beginning near the ground. Pods are almost straight, 2½ to 2¾ inches long, light in color and blunt at the ends. Ready to pick 59 to 61 days from planting. Seed is green, wrinkled and medium in size.

Sutton's Excelsior. Similar in habit of growth to Nott's Excelsior, but bearing very large, broad pods, well filled with large peas. Very tender, and of the most delicious flavor. Vines about 18 to 20 inches high, medium light in color with pods 3½ to 3¾ inches long, light in color and blunt at the ends. Is ready to pick 52 days from planting. Seed green, wrinkled, medium in size.

Dwarf Telephone. Vines, 18 to 20 inches high, with rather coarse foliage, medium light green, bearing pods, broad, straight, and about 4 inches long. Pale green in color and well filled with peas of excellent flavor. Ready for picking from 62 to 65 days from planting. Seed pale green, large, much wrinkled.

Advancer. Vines upright and vigorous in growth, hardy and productive. Height, 30 inches, foliage dark green. Pods 2½ to 2¾ inches long, round, dark colored and blunt. Fit for picking 61 days from planting. Seed green, wrinkled, medium in size. A very fine pea for canners' use.

Horseford's Market Garden. Strongly resembling Premium Gem in habit of growth, but about one-third taller, vines growing 26 to 30 inches high, foliage dark green, wrinkled, medium in size. Fit for picking 68 days from planting. Seed green, wrinkled, medium in size. A very fine pea for canners' use.

PEAS—(Continued).



Abundance. Vigorous in growth and productive, bearing pods in great abundance, although of medium size and of excellent quality. Very similar in every respect to Horsford's Market Garden, except that it is a few days later, being fit for picking 71 days from planting. Pods are dark green and blunt. Seed green, wrinkled, and medium in size.

Gradus. A large, wrinkled, early Pea, with a pod nearly as large as Telephone, filled with large peas, tender and of good quality and flavor. Very quick to germinate and mature with the early sorts. This pea will not stand adverse conditions, however, as well as some of the other sorts, and seed must be planted after all danger of early frost has passed. Height of vine, 26 to 30 inches, with large, luxuriant foliage, pale green in color. Pods dark green, 4 to 4½ inches in length, and pointed; fit for table use 52 days from planting. Seed large, cream colored, wrinkled.

Thomas Laxton. Closely resembling Gradus in habit, rapidity of growth, earliness and foliage, 26 to 30 inches high, and much hardier in every respect than Gradus. Pods 4 to 4½ inches long, round, well filled with peas, blunt at the end. Fit to pick 52 days from planting. Seed large, cream colored, wrinkled.

Leonard's Potlatch. Strong, vigorous vines, luxuriant dark foliage 24 inches in height, bearing pods 3½ to 4 inches in length, pointed at ends, medium green in color. Fit to pick 61 days from planting. Seed green, wrinkled, large in size.

Sutton's Dwarf Defiance. The vines, vigorous and hardy, about 2 feet in height, with coarse, dark green foliage, bearing long, broad pointed pods, dark green in color. Fit for picking 61 days from planting. Seed large green, wrinkled. This pea is much more uniform in growth than the Stratagem, which it very closely resembles, and has the advantage of remaining fixed in its type, and showing practically no sports or runners.

Everbearing. Vigorous and branching in habit of growth. Height, 2½ to 3 feet. Pods, 2½ to 3 inches long. Broad, light colored and blunt. Fit to pick 70 days from planting. Seed, green, wrinkled, large in size.

Shropshire Hero. Strong, vigorous vines, 42 inches in height. Pods 3 to 3½ inches long, blunt, light green in color. Fit for table use 68 to 73 days from planting. Seed large, green, wrinkled.

Yorkshire Hero. Hardy, productive, and upright in growth, bearing near the top of the stalk, broad, pointed pods with peas of a good quality. Foliage, dark green, 23 to 28 inches in height. Pods, 2½ to 3 inches long, blunt, light green in color. Fit to pick 68 to 73 days from planting. Seed large, green, wrinkled.

Telegraph. Closely resembling Telephone in all respects, except that the pods are a deeper shade of green, and the peas are of only fair quality, although the pods are of very fine appearance. Pods, 4 to 4½ inches long, medium dark green, pointed. Fit to pick 65 days from planting. Seed large, blue, and round dented.

Duke of Albany. Resembling the Telephone in appearance. Vine and foliage medium green in color. Height, 50 inches, pods 5 inches long, broad, pointed, dark green. Seed large, green, wrinkled.

Alderman. A large podded pea of the Telephone type, very robust and vigorous as to vine, foliage, mixed, medium green. Height, 50 inches, pods, 5 inches long, broad pointed, medium green in color. Seed green, wrinkled, large.

Telephone. Vines and leaves large and coarse. Foliage light green in color. Height, 40 to 50 inches, pods, 4½ inches long, broad pointed, medium green in color. Fit to pick 62 to 65 days from planting. Seed large, green, wrinkled.

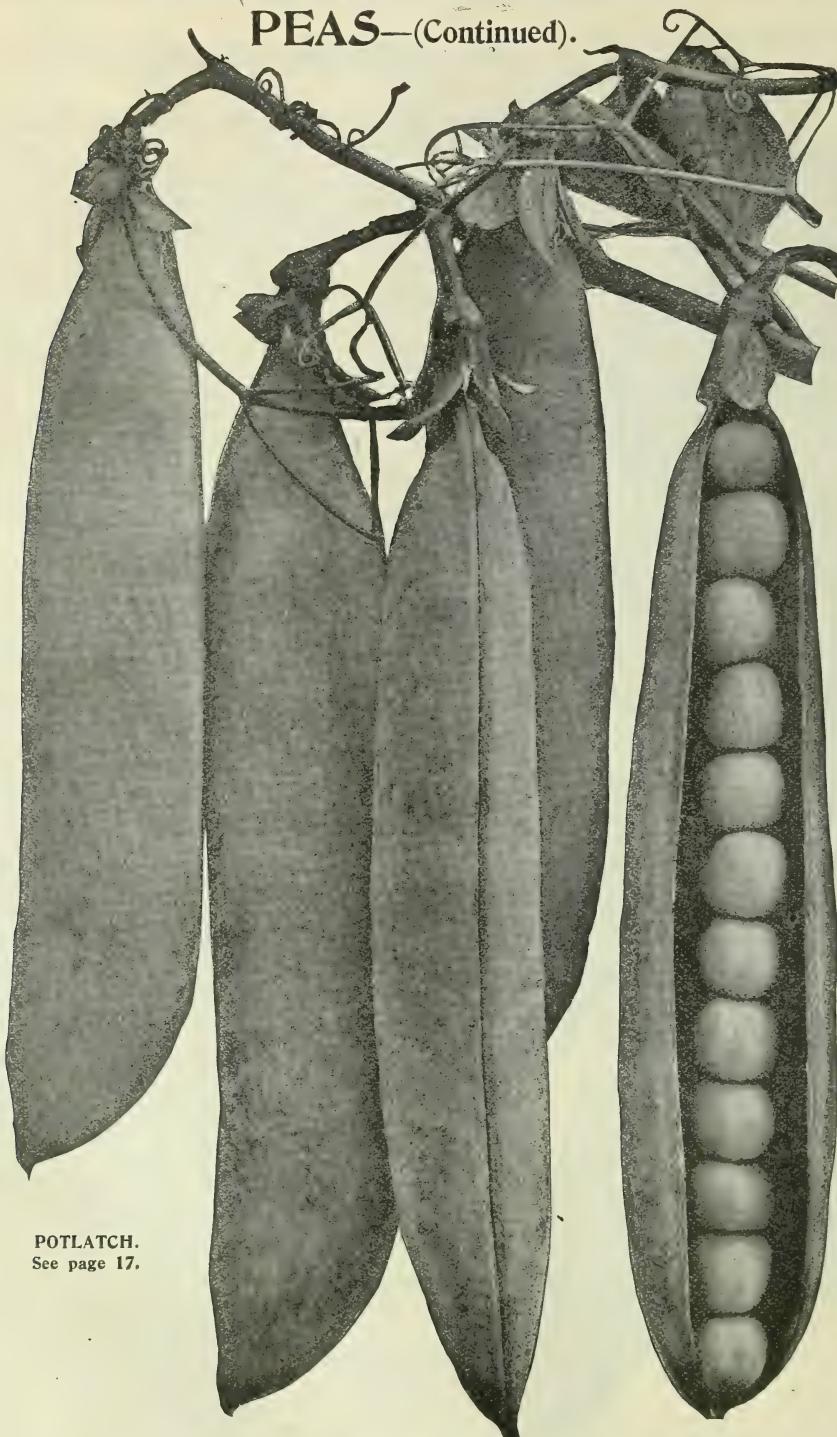
Stratagem. A vigorous, hardy and luxuriant vine bearing

large pods containing peas of excellent quality. A heavy cropper, but it has a tendency to sport. Vines 20 inches. Foliage dark green. Pods 3½ inches long, straight, broad pointed, gray green in color. Fit for table use 56 days from planting. Seed very large, green, wrinkled.

Sutton's Peerless. Vines 3 to 3½ feet in height, dark green foliage. Pods large, pointed, and dark green in color. Fit for table use 75 to 78 days from planting. Seed large, blue green, wrinkled.

Pride of the Market. Of fine growth and general appearance, both vine and pod, and closely resembles the Stratagem, except that the vine is not quite so long, and the pods are deeper green in color. The vine is 20 inches high, foliage dark green color. Pods are 3½ inches long, broad, and dark in color. Fit for table use 61 days from planting. Seed, blue, slightly dented, large.

PEAS—(Continued).



POTLATCH.
See page 17.

White Marrowfat. Vines hardy, strong, vigorous and bearing broad, thick, leathery pods near the top of the vine, and containing peas of a poor quality. Height, 45 to 50 inches, foliage light green in color, pods 3 inches long, blunt, and light green. Ready to pick 69 days from planting. Seed large, smooth, white.

Black-Eyed Marrowfat. Strong and vigorous vines bearing pods near the top of the vine. Peas of a poor quality. Height, 50 to 60 inches, light color foliage, pods 3 inches long, blunt, light green. Ready to pick 69 days from planting. Seed large, smooth, white with a black eye.

Champion of England. Strong and vigorous in growth, 42 to 50 inches in height. Foliage medium green. Pods $2\frac{1}{2}$ to 3 inches long, blunt, medium dark green in color. Ready to pick 68 to 73 days from planting. Seed large, green, very much wrinkled.

PUMPKINS.

Connecticut Field. The common yellow variety usually grown for feeding stock. Good for canning and for pies.

Large Cheese. A very hardy and productive variety, the best for cooking purposes.

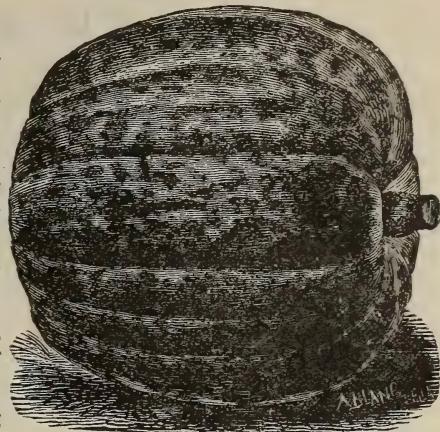
Large Tours, or Mammoth. This variety grows to an immense size, often weighing over 100 pounds.

Golden Oblong. A very fine, new and productive variety, growing oblong to a length of sixteen to eighteen inches, and seven to eight inches in diameter. Flesh rich yellow, very sweet, dry and excellent for pies. A good keeper.

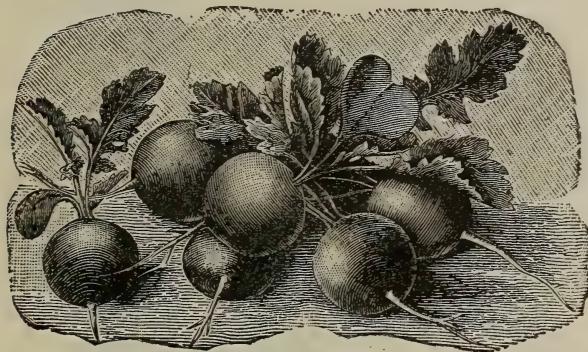
Winter Queen. This is an improvement of the old well liked sugar pumpkin, and is admitted by all who have grown it to be the very best pie pumpkin on the market. Its size is uniformly about nine to ten inches in diameter. In color, a beautiful deep orange yellow, with a very close netting, almost as russeted as a potato. It is a good winter keeper and unequaled as a cooking variety.

Mammoth Potiron. The flesh and skin are of a bright golden yellow color. Flesh, fine grained, and of excellent quality. Notwithstanding its enormous size, it is one of the very best pie pumpkins ever grown, and a splendid keeper. This enormous variety has been grown to weigh 200 pounds.

Tennessee Sweet Potato. Hardy, productive, sweet and delicious, and one of the best for cooking purposes ever introduced.



FIELD PUMPKIN.



SCARLET GLOBE.

French Breakfast. Olive-shaped, scarlet, with white tip; crisp and mild.

Long White Vienna, or Lady Finger. A very excellent white variety with long, very smooth white roots.

Chartier. Decidedly distinct in appearance from any radish in cultivation.

Long Scarlet, Short Top Improved. This bright scarlet, small topped sort is about six inches long, grows half out of the ground, is uniformly straight, smooth, brittle and crisp, and is a standard and excellent sort for private gardens or market use.

Wood's Early Frame. This is not only a good variety for forcing, being shorter and thicker than the old Long Scarlet Short Top, but is one of the very best sorts for first crop out of doors.

White Strasburg, or Summer Hospital. Large, showy, half long, white sort. Grows with great rapidity, sometimes producing a crop in six weeks. It will keep in eatable condition two weeks before going into seed. Best summer radish grown.

Giant Stuttgart. A summer variety. Grows to an immense size. White flesh, very crisp and tender. Of good flavor and a good keeper.

Early Scarlet Globe. A desirable sort for hotbed forcing and outdoors; very early; flavor mild, crisp, juicy and tender; top small; will stand heat without becoming pithy. One of the best selling and most attractive radishes, on account of its bright scarlet color and handsome shape. Is ready in twenty-eight days.

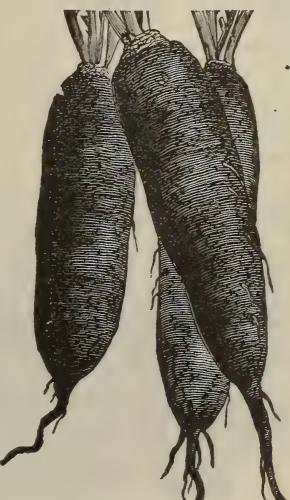
WINTER RADISHES.

Sow about the same time as winter turnips, on light, rich soil, in drills eighteen inches apart; give frequent cultivation, and thin two to six inches apart, according to size of the variety. For winter, use before severe frost and store in damp sand in cellar.

Scarlet China. Roots cylindrical, or largest at the bottom tapering abruptly to a small top. Skin very smooth and of a bright rose color; flesh firm, crisp, tender and quite pungent.

Half Long Black Spanish. An American sort of the same general character as the Long Black Spanish, but by many considered superior to either the Round or the Long Black Spanish.

Long Black Spanish. One of the latest, as well as the hardiest of the radishes. An excellent sort for winter use.



LONG BLACK SPANISH.

RHUBARB. (PIE PLANT)

Rhubarb, familiarly known as Pie Plant, or Wine Plant, is cultivated in gardens for its leaf stalks, which are used for pies and tarts. Immense quantities are now annually sold in all the large markets. No private garden should be without it.

Culture. Rhubarb succeeds best in deep, somewhat retentive soil. The richer its condition and the deeper it is stirred the better. Sow in drills an inch deep, and thin out the plants to six inches apart. In the fall transplant the young plants into very highly manured and deeply stirred soil, setting them four to six feet apart each way, and give a dressing of coarse manure every spring. The stalks should not be plucked until the second year, and the plant never allowed to exhaust itself by running to seed. Our seed is saved from selected plants of the Linnæus, Victoria, Giant and other improved sorts, but like the seeds of fruit trees, rhubarb seed cannot be relied upon to reproduce the same varieties.

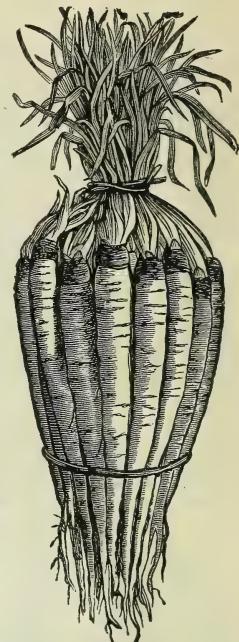
Rhubarb Seed.

Rhubarb Roots. By express, not prepaid, 20c each, \$1.50 per dozen.

PRICES ON LARGE LOTS OF RHUBARB ROOTS ON APPLICATION.



MAMMOTH SANDWICH
ISLAND SALSIFY



LARGE WHITE SALSIFY

SALSIFY. (VEGETABLE OYSTER)

The long, white tapering root of salsify resembles a small parsnip, and when cooked is a good substitute for oysters, having a very similar flavor.

Culture. It succeeds best in a light well-enriched soil, which should be stirred to a good depth. Coarse and fresh manure should be avoided, as it will surely cause the roots to grow uneven and ill-shaped. Sow early and quite deep, giving the general culture recommended for parsnip. The roots are perfectly hardy, and may remain out all winter, but should be dug early in spring as they deteriorate rapidly, after growth commences. Store a quantity for winter use in a pit or cellar in damp earth or sand.

Large White. The common variety, roots medium sized, smooth; flesh white.

Mammoth Sandwich Island. This is in every way superior to the Large White, being larger, stronger growing and less liable to branch. Invaluable to market gardeners.

SPINACH.

Spinach is very hardy, extremely wholesome and palatable and makes a delicious dish after cooking.

Culture. Should be planted in very rich ground, the richer the better. Sow in drills one foot apart and begin thinning out the plants when the leaves are an inch wide. All should be cut before hot weather or they will be tough and stringy. For early spring use, sow early in autumn and protect the plants with a slight covering of leaves or straw.

Victoria. An excellent sort, which forms a very large, exceedingly thick, dark green leaf, somewhat curled in the center. It becomes fit for use nearly as early as any, remaining so much longer than most kinds, and cannot fail to please, whether grown for the market or in the private garden.

Savoy Leaved. The earliest variety and one of the best to plant in autumn for early spring use. Plant of upright growth, with narrow, pointed leaves, which are curled like those of the Savoy cabbage. It grows quickly to a suitable size for use, but soon runs to seed.

Round Summer Broad Leaved. This variety is generally preferred in the north for early spring sowing, and is the favorite with our market gardeners. The leaves are large, thick and fleshy.

Though not quite as hardy as the Prickly Winter, it stands the winter very well.

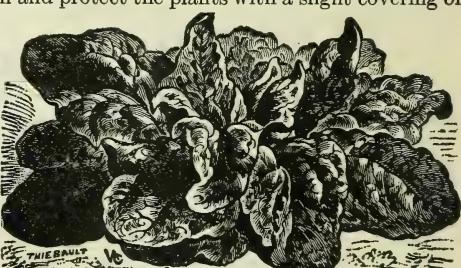
Improved Thick Leaved. A variety which grows very rapidly, forming a cluster of large, very thick, slightly wrinkled leaves of fine color and quality when cooked. Especially recommended for market gardeners.

Long Standing. An improved, round seeded strain of excellent merit, having all the good qualities of other sorts and continuing in condition for use much longer. The leaves are smooth and very dark, rich green. Very popular with market gardeners.

Prickly Winter. A very hardy variety and will withstand the severest weather with only a slight protection of leaves or straw. The seed is prickly, leaves triangular, oblong or arrow shaped. It is used for fall sowing, which in this latitude is about the first of September.



SAVOY LEAVED SPINACH



ROUND LEAVED SPINACH



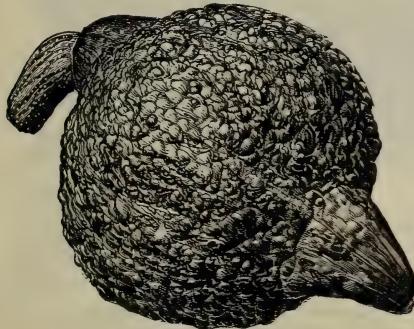
MAMMOTH
WHITE
BUSH.

Mammoth White Bush. This has been obtained by years of careful selection. Although we have sold this squash for a number of years, we again call special attention to it.

Mammoth Chili. The largest of all squashes, growing to an immense size, often weighing over two hundred pounds, while its rich, fine-flavored flesh insures its value for all purposes.

Orange Marrow. A variety developed by selection from the Boston Marrow and not so large but much earlier, and the earliest of the winter varieties. Fruit deep orange color, netted with cream; shape similar to Boston Marrow; flesh thick, deep yellow, of fine quality.

Essex Hybrid. This is not only one of the richest flavored, finest grain and sweetest of all squashes, but it is also one of the very best keepers that we know of. Short cylindrical shape, having on the blossom end a small cap shaped enlargement. The flesh is dry, sweet and thick, and of a bright orange color.



WARTY HUBBARD.

given out to all who have called for the best stock of Hubbard Squash. We have maintained its purity by continued selection and offer head-quarters seed.

TOBACCO.

Pennsylvania Seed Leaf. This is the variety mostly grown for cigars, and is of fine quality and excellent flavor.

Persian Rose A fine brand for cigars. Sells well.

Yellow Pryor. A fine yellow sort, and succeeds well where others fail.

Blue Pryor. This is the genuine article and a good sort.

General Grant. Very early, and a good yielder.

Connecticut Seed Leaf. The best sort for cigar wrappers. Try it.

Havana. This is the genuine article, and is first-class.

Ohio. White leaved. A large yielder.

SQUASH.

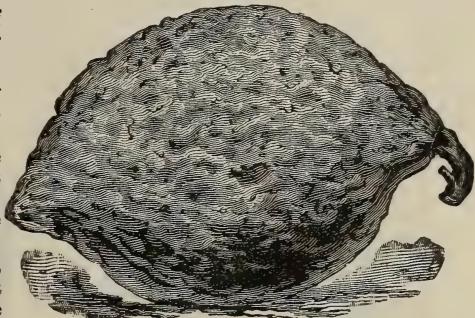
Giant Crook-Neck. This strain is a great improvement on the old variety of Crook-Neck. It is larger and better in every way.

Straight-Neck Summer Squash. Market gardeners who ship early squash to distant markets know the difficulty of packing the crook-necked variety in boxes to good advantage. In our straight-neck the bad feature of the crook has been overcome, and by continued selection the size has been increased more uniformly in shape and improved quality.

Golden Custard Bush. Exceeds in size any of the scalloped sorts.

Delicata. Early and very prolific; of oblong shape. Ground color orange yellow, splashed and striped with very dark green. Although of small size, the squashes are very solid and heavy, while the quality is rich and dry.

Early White Bush Scallop. Similar in form to the Golden Bush, but with a cream white skin, and more tender and delicate flesh.



ORANGE MARROW.

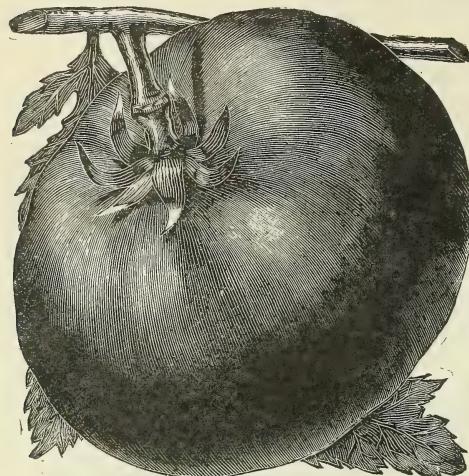
Boston Marrow. Second early, coming in about ten days after the Bush and Crook-neck sorts. Skin yellowish, very thin; the flesh dry and fine grained, and of unsurpassed flavor.

Hubbard. A general favorite and more largely grown as a late sort than any other; it is of large size, often weighing from nine to ten pounds. Color bluish green, occasionally marked with brownish orange or yellow. Flesh fine grained, dry, and of excellent flavor. It can be had in use from September to May.

Warty Hubbard. This is the best strain of Hubbard Squash. By its rough, hard, warty shell and its dark olive green color it can be distinguished from any other strain, either in the field or on the market. It was introduced in 1894 and since that time under different names at different places it has been



CONNECTICUT SEED LEAF TOBACCO.



SPARK'S EARLIANA

Dwarf Champion. This is a purple fruited variety, which forms very strong plants about two feet high. The branches are short, making a bushy plant that stands quite erect without stakes. This sort is often sold as Tree Tomato. Fruit smooth, medium sized, color purplish pink, fairly solid, but has no hard core, and is of good flavor. About as early as any purple fruited tomato, and is quite popular in some localities, both for market and home use.

Perfection. A splendid red variety, hardy, productive, and a good bearer.

Atlantic Prize. A very early variety, fairly smooth; good for first crop.

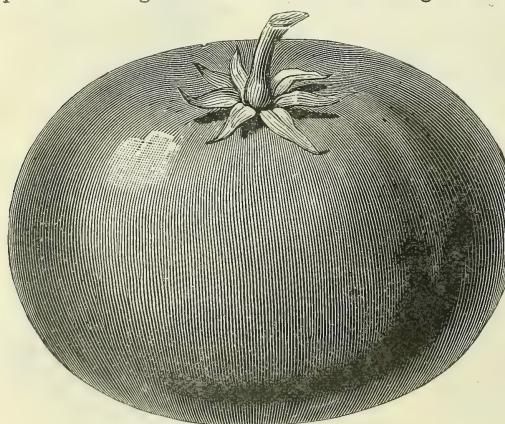
Trophy. A good main crop sort. Color, red, fruit large.

Mikado, or Turner's Hybrid. One of the latest of the good market varieties. The vines are very distinct. Have a potato leaf appearance. In color, this sort is like the Acme, fine, large, smooth fruit.

Ponderosa. This variety, when conditions are favorable, grows to an immense size and makes the heaviest fruit of any in the list. Our stock is from the original strain. None better.

Acme. One of the best standard sorts. Of a fine crimson purplish color. Shape is smooth, size large and uniform. For the market or home garden no sort is better.

Livingston's New Globe. Is of beautiful globe shape, with quite a percentage of elongated fruits, which permits of a greater number of slices being taken than with flat fruited sorts.



NEW STONE

TOMATO.

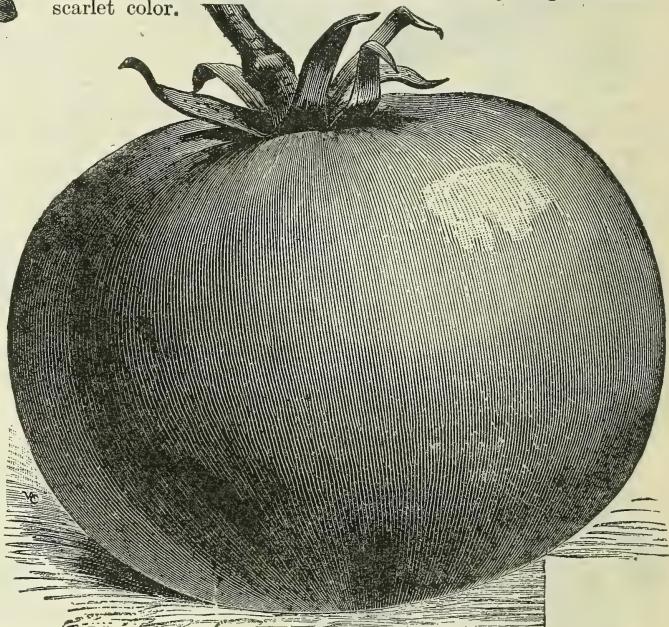
Spark's Earliana. Said to be the earliest large tomato in the world. This tomato is not only remarkable for its earliness, but for its very large size, handsome shape and bright, red color. Its solidity and fine quality are quite equal to the best medium and late sorts. From less than 4,000 hills the originator realized from his first pickings \$725.00 clear of freight and commission, being in the market fully a week before all others.

Chalk's Early Jewel. The largest, smoothest and finest flavored extra early Tomato in cultivation. Within a week to ten days as early as the famous Spark's Earliana.

Crines June Pink. A fine new variety. It is highly recommended to gardeners whose trade demands the purplish pink sorts.

Livingston's Favorite. A well known red variety, smooth and solid.

Optimus. One of the best table tomatoes. Vine medium sized, vigorous and strong. While not classed as a first early, it is reported by growers to ripen fully as early as many of the earliest, making an excellent forcing variety. The fruit is medium sized, oval, very smooth, and of a very bright crimson-scarlet color.



BEAUTY

Beauty. A decided favorite for either home market or shipping purposes, being early, hardy, a strong grower, productive, large size, always smooth, perfect in shape, and excellent in quality. The color is a very glossy crimson, with a tinge of purple. It grows in clusters of four to six large fruit, retaining its large size late in the season. It ripens with Acme and Perfection, and is entirely free from ribbed and elongated fruit.

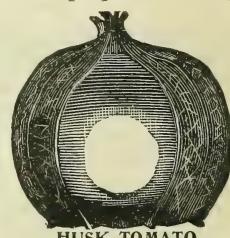
New Stone. A fine new, red variety, very solid and smooth; a splendid main crop sort.

Matchless. A good canning and all purpose tomato; splendid for kitchen.

Royal Red. A new sort, of considerable merit. Vines vigorous; fruit smooth. Very productive.

Yellow Plum. A small yellow variety, of handsome appearance and fair quality.

Husk, or Ground Cherry. This is a small sized fruit grown within a husk. It is valuable for preserving, for making into pies, or for eating from the hand.



HUSK TOMATO

TURNIP.

Extra Early White Milan Turnip. The Early White Milan is one of our most popular turnips for spring sowing, a splendid extra early turnip in which the extreme earliness, small top and tap root of the Purple Top Milan is united with clear white skin and flesh.

Pomeranean White Globe. This is one of the most productive kinds, and in good, rich soil roots will frequently grow to twelve pounds in weight. It is of perfect globe shape; skin white and smooth; leaves large and dark green.

Purple Top White Globe. An early variety. Globe shaped; heavy cropper. In other respects similar to the Red Top Strap Leaf. A handsome looking bulb. And is rapidly taking the lead of all other varieties of early turnips for market garden purposes.

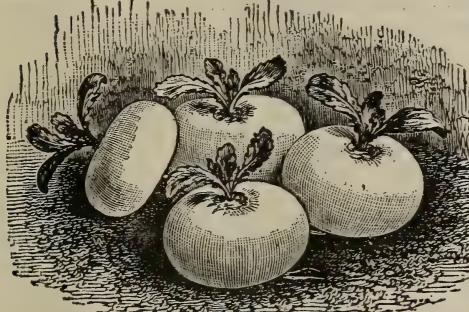
Extra Early Purple Top Milan. The earliest in cultivation, two

weeks earlier than Purple Top Strap Leaf. The bulb is flat, of medium size, quite smooth, with a purple top. Flesh, white, hard and of finest quality. It is an extra good keeper.

Large White Norfolk. The standard variety for field culture for feeding stock. Very large size.

Cow Horn. This variety is pure white, except a little shade of green at the top, and is carrot-like in form, growing nearly half out of the ground, and slightly crooked. It is delicate and well flavored, of very rapid growth, and has obtained considerable favor as a market sort for fall and early winter use.

Early Snowball. A perfectly globe-shaped, white-skinned turnip. It is exceedingly productive. The flesh is fine grained, firm and of very delicate flavor. It is one of the best keeping of the white-fleshed sorts. Very early and particularly adapted for family or market use. We recommend it to market gardeners because its earliness and fine appearance make it a very profitable variety of turnip.



EXTRA EARLY WHITE MILAN

Early White Flat Dutch. An excellent garden variety. The best for spring sowing.

White Egg. Belongs to the class of quick growing fall turnips. Its shape is nearly oval or egg, as its name would indicate.

Seven Top. Cultivated extensively in the south for the tops, which are used for greens. It is very hardy and will grow all winter, but does not produce a good root, and is only recommended for the tops.

Purple Top Strap Leaf. Rapid grower and mild flavor. The most popular variety for early use, either for the table or stock.

Yellow Aberdeen. Very hardy and productive; a good keeper; globe shaped. Color pale yellow with purple top. Very firm in texture, and closely resembling the Rutabaga in good keeping qualities. Good either for table or stock.

Large Amber Globe. One of the best varieties for a field crop for stock. Flesh yellow, fine grained and sweet; color of skin yellow, top green. Hardy, keeps well, a good cropper. Very popular in the South.

RUTABAGA.

SWEDISH TURNIP

Improved American. The best yellow fleshed, purple top variety grown for stock or table.

Budlong's White Rock. Though sometimes called a turnip, this is more like a rutabaga. The root is large, both skin and flesh very white. An excellent keeper and a desirable sort for market gardeners.

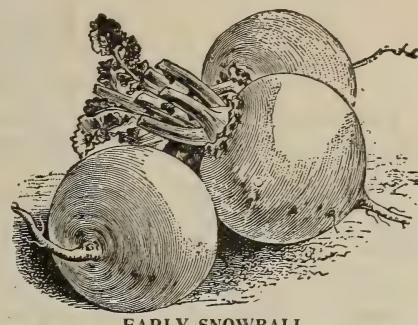
White Rutabaga. This variety is now extensively cultivated, and preferred in many sections for its white flesh. It is very hardy and productive, keeps well until late in the spring, and is highly esteemed for its sweet, delicate flavor.

Laing's Improved. One of the earliest of the rutabagas. Forms a handsome bulb of good quality. Keeps well; good for table use.

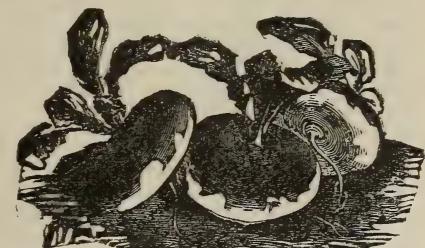
Long White French. A very delicate flavored variety. An excellent keeper and fine for table.

Skirving's Purple Top. A very heavy cropper. One of the best for field culture.

Carter's Imperial Hardy. An English variety resembling the preceding. Very productive and of fine quality.



EARLY SNOWBALL



EXTRA EARLY PURPLE TOP MILAN



RUTABAGA

USEFUL TABLES.

WEIGHTS AND MEASURES.

Troy Weight. 24 grains, 1 pwt.; 20 pwts. 1 ounce; 12 ounces, 1 pound. Used for weighing gold, silver and jewels.

Apothecarie's Weight. 20 grains, 1 scruple; 3 scruples, 1 dram; 8 drams, 1 ounce; 12 ounces, 1 pound. The ounce and pound in this are the same as in Troy weight.

Avoirdupois Weight. 27 11-32 grains, 1 dram; 16 drams, 1 ounce; 16 ounces, 1 pound; 25 pounds, 1 quarter; 4 quarters, 1 cwt.; 2,000 pounds, 1 short ton; 2,240 pounds, 1 long ton.

Dry Measure. 2 pints, 1 quart; 8 quarts, 1 peck; 4 pecks, 1 bushel; 36 bushels 1 chaldron.

Liquid Measure. 4 gills, 1 pint; 2 pints, 1 quart; 4 quarts, 1 gallon; 31 $\frac{1}{2}$ gallons, 1 barrel; 2 barrels, 1 hogshead.

Time Measure. 60 seconds, 1 minute; 60 minutes, 1 hour; 24 hours, 1 day; 7 days, 1 week; 28, 29, 30 or 31 days, 1 calendar month (30 days, 1 month in computing interest); 365 days, 1 year; 366 days, 1 leap year.

Circular Measure. 60 seconds, 1 minute; 60 minutes, 1 degree; 30 degrees, 1 sign; 90 degrees, 1 quadrant; 4 quadrants, 12 signs; or 360 degrees, 1 circle.

Long Measure. 12 inches, 1 foot; 3 feet, 1 yard; 5 $\frac{1}{2}$ yards, 1 rod; 40 rods, 1 furlong; 8 furlongs, 1 stat. mile; 3 miles, 1 league.

Cloth Measure. 2 $\frac{1}{4}$ inches, 1 nail; 4 nails, 1 quarter; 4 quarters, 1 yard.

Mariners' Measure. 6 feet, 1 fathom; 120 fathoms, 1 cable length; 7 $\frac{1}{2}$ cable lengths, 1 mile; 5,280 feet, 1 stat. mile; 6,085 feet, 1 naut. mile.

Miscellaneous. 3 inches, 1 palm; 4 inches, 1 hand; 6 inches, 1 span; 18 inches, 1 cubit; 21.8 inches, 1 Bible cubit; 2 $\frac{1}{2}$ feet, 1 military space.

Square Measure. 144 sq. inches, 1 sq. foot; 9 sq. feet, 1 sq. yard; 30 $\frac{1}{4}$ sq. yards, 1 sq. rod; 40 sq. rods, 1 rod; 4 rods, 1 acre; 640 acres, 1 sq. mile.

Surveyors' Measure. 7.92 inches, 1 link; 25 links, 1 rod; 4 rods, 1 chain; 10 sq. chains or 160 sq. rods, 1 acre; 640 acres, 1 sq. mile; 36 sq. miles, (6 miles square), 1 township.

Cubic Measure. 1,728 cubic inches, 1 cubic foot; 27 cubic feet, 1 cubic yard; 2,150.42 cubic inches, 1 standard bushel; 268.8 cubic inches, 1 standard gallon; 1 cubic foot, about four-fifths of a bushel; 128 cubic feet, 1 cord (wood); 40 cubic feet, 1 ton (shipping).

Metric Equivalents. Linear. 1 centimeter, 0.3937 inches; 1 decimeter, 3.937 inches; 0.328 feet; 1 meter, 39.37 inches, 1.0936 yards; 1 dekameter, 1.9884 rods; 1 kilometer, 0.62137 mile.

Square. 1 sq. centimeter, 0.1550 sq. in.; 1 sq. decimeter, 0.1076 sq. ft.; 1 sq. meter, 1.196 sq. yds.; 1 acre, 3.954 sq. rods; 1 hektar, 2.47 acres; 1 sq. kilometer, 0.386 sq. miles.

Volume. 1 cubic centimeter, 0.061 cubic in.; 1 cubic decimeter, 0.0353 cubic ft.; 1 cubic meter, 1 ster. 1.308 cubic yds.; 0.2759 cd, 1 liter, 0.908 qt. dry, 1.0567 qts. liq.; 1 dekaliter, 2.6417 gals.; .135 peck; 1 hektoliter, 2.8375 bus.

Weights. 1 gram, 0.03527 ounce; 1 kilogram, 2.2046 lbs.; 1 metric ton, 1.1023 English tons.

Approximate Metric Equivalents. 1 decimeter, 4 inches; 1 meter, 1.1 yards; 1 kilometer, $\frac{5}{8}$ of a mile; 1 hektar, 2 $\frac{1}{2}$ acres; 1 ster. or cubic meter, $\frac{1}{4}$ of a cord; 1 liter, 1.06 qts. liquid, 0.9 quarts dry; 1 hektoliter, 2 $\frac{1}{2}$ bushels; 1 kilogram, 2 $\frac{1}{2}$ lbs.; 1 metric ton, 2,200 lbs.

Measurements of an Acre. The following will be found useful in arriving at accuracy in estimating the amount of land in different pieces of ground under cultivation; 5 yards wide by 968 yards long, contains

one acre; as do also the following measurements: 10 yards wide by 484 yards long; 20 yards wide by 242 yards long; 40 yards wide by 121 yards long; 70 yards wide by 69 $\frac{1}{2}$ yards long; 60 feet wide by 726 feet long; 110 feet wide by 396 feet long; 120 feet wide by 363 feet long; 220 feet wide by 198 feet long; 240 feet wide by 181 $\frac{1}{2}$ feet long, and 440 feet wide by 99 feet long.

REFERENCE TABLES.

Quantity of Seed Requisite to Produce a Given Number of Plants and Sow an Acre

	Quantity per acre.
Artichoke, 1 oz. to 500 plants	6 oz.
Asparagus, 1 oz. to 800 plants	1 lb.
Asparagus Roots	1000 to 7250
Barley	2 $\frac{1}{2}$ bu.
Beans, Dwarf, 1 pint to 100 ft. of drill	1 "
Beans, pole, 1 pint to 100 hills	$\frac{1}{2}$ "
Beet, garden, 1 oz. to 100 ft. of drill	7 lbs.
Beet, mangel, 1 oz. to 100 ft. of drill	5 "
Broccoli, 1 oz. to 5,000 plants	2 oz.
Brussels Sprouts, 1 oz. to 5,000 plants	2 "
Buckwheat	$\frac{1}{2}$ bu.
Cabbage, 1 oz. to 3,000 plants	2 oz.
Carrot, $\frac{1}{2}$ oz. to 100 feet of drill	2 $\frac{1}{2}$ lbs.
Cauliflower, 1 oz. to 3,000 plants	2 $\frac{1}{2}$ oz.
Celery, 1 oz. to 15,000 plants	2 "
Chicory	4 lbs.
Clover, Alsike and White Dutch	6 lbs.
" Lucerne	15 to 25 "
" Crimson Trefoil	10 to 15 "
" Large Red and Medium	8 to 12 "
Collards, 1 oz. to 5,000 plants	2 oz.
Corn, rice (shelled)	2 qts.
Corn, sweet, $\frac{1}{4}$ pint to 100 hills	6 "
Cress, $\frac{3}{4}$ oz. to 100 feet of drill	12 lbs.
Cucumber, 1 oz. to 100 hills	1 to 3 "
Egg Plant, 1 oz. to 2,000 plants	4 oz.
Endive, $\frac{1}{2}$ oz. to 100 feet of drill	4 $\frac{1}{2}$ lbs.
Flax, broadcast	$\frac{1}{2}$ bu.
Garlic, bulbs, 1 lb. to 10 feet of drill	
Gourd, 2 oz. to 100 hills	
Grass, Blue, Kentucky	2 bu.
" Blue, English	1 "
" Hungarian and Millet	$\frac{1}{2}$ "
" Mixed Lawn	3 to 5 "
" Red Top, Fancy Clean	.8 to 10 lbs.
" Red Top, Chaff Seed	.20 to 28 "
" Timothy	$\frac{1}{4}$ bu.
" Orchard, Perennial Rye, Fowl Meadow and Wood Meadow	2 bu.
Hemp	$\frac{1}{2}$ "
Horse Radish Roots	10,000 to 15,000
Kale, 1 oz. to 5,000 plants	2 oz.
Kohl Rabi, $\frac{1}{2}$ oz. to 100 feet of drill	4 lbs.
Leek, $\frac{1}{2}$ oz. to 100 feet of drill	4 "
Lettuce, $\frac{1}{2}$ oz. to 100 feet of drill	3 "
Martynia, 1 oz. to 100 feet of drill	5 "
Melon, Musk, 1 oz. to 100 hills	1 to 3 lbs.
" Water, 4 oz. to 100 hills	$\frac{1}{2}$ to 4 "
Nasturtium, 2 oz. to 100 feet of drill	15 "
Okra, 1 oz. to 100 feet of drill	8 "
Onion Seed, $\frac{1}{2}$ oz. to 100 feet of drill	4 to 5 "
" for sets	.40 to 80 "
Onion Sets, 1 quart to 40 feet of drill	8 bu.
Parsnip, $\frac{1}{2}$ oz. to 100 feet of drill	3 lbs.
Parsley, $\frac{1}{2}$ oz. to 100 feet of drill	3 "
Peas, garden, 1 pint to 100 feet of drill	1 to 3 bu.
" field	2 "
Pepper, 1 oz. to 1,500 plants	3 oz.
Pumpkin, $\frac{1}{2}$ qt. to 100 hills	3 to 4 lbs.
Radish, $\frac{3}{4}$ oz. to 100 feet of drill	10 to 12 "
Rye	1 $\frac{1}{2}$ bu.

USEFUL TABLES.

REFERENCE TABLES (Continued).

Salsify, $\frac{1}{4}$ oz. to 100 feet of drill	8 lbs.
Spinach, $\frac{1}{4}$ oz. to 100 feet of drill	8 "
Spurry	15 "
Summer Savory	$\frac{3}{4}$ "
Sunflower	8 "
Squash, Summer, 4 oz. to 100 hills	2 "
" Winter, 8 oz. to 100 hills	2 "
Tomato, 1 oz. to 4,500 plants	1 oz.
Tobacco, 1 oz. to 5,000 plants	2 "
Turnip, 1 oz. to 250 feet of drill	1 to 3 lbs.
Vetches	2 bu.

Number of Plants or Trees to the Acre at Given Distances.

Dis. apart.	No. plants.	Dis. apart.	No. plants.
12x 1 in.	522,720	36x36 in.	4,480
12x 3 "	174,240	42x12 "	12,446
12x12 "	43,560	42x24 "	6,223
16x 1 "	392,040	42x36 "	4,148
18x 1 "	348,480	48x12 "	10,890
18x 3 "	116,160	48x18 "	7,790
18x12 "	29,040	48x24 "	5,445
18x18 "	19,360	48x30 "	4,356
20x 1 "	313,635	48x36 "	3,630
20x20 "	15,681	48x48 "	2,723
24x 1 "	261,360	60x36 "	2,901
24x18 "	15,520	60x48 "	2,178
24x24 "	10,890	60x60 "	1,743
30x 1 "	209,088	8x 1 ft.	5,445
30x 6 "	34,848	8x 3 "	1,815
30x12 "	17,424	8x 8 "	680
30x16 "	13,068	10x 1 "	4,356
30x20 "	10,454	10x 6 "	726
30x24 "	8,712	10x10 "	435
30x30 "	6,970	12x 1 "	3,630
36x 3 "	58,080	12x 5 "	736
36x12 "	14,520	12x12 "	302
36x18 "	9,680	16x 1 "	2,722
36x24 "	7,260	16x16 "	170

WEIGHT PER CUBIC FOOT.

Hay, well settled.	4 $\frac{1}{2}$ lbs.
Corn, on Cob in bin.	22 "
" shelled, "	45 "
Wheat,	48 "
Oats,	25 $\frac{1}{2}$ "
Potatoes,	38 $\frac{1}{2}$ "

Average Time Required for Garden Seeds to Germinate.

	Days.		Days.
Bean	5 to 10	Lettuce	6 to 8
Beet	7 to 10	Onion	7 to 10
Cabbage	5 to 10	Pea	6 to 10
Carrot	12 to 18	Parsnip	10 to 20
Cauliflower	5 to 10	Pepper	9 to 14
Celery	10 to 20	Radish	3 to 6
Corn	5 to 8	Salsify	7 to 12
Cucumber	6 to 10	Tomato	6 to 12
Endive	5 to 10	Turnip	4 to 8

Time Required for Maturity of Different Garden Crops
Reckoned from the Day of Sowing the Seed.

	Days.		Days.
Beans, String	45 to 65	Lettuce	65
Beans, Shell	65 to 70	Melon, Water	120 to 140
Beets, Turnip	65	Melon, Musk	120 to 140
Beets, Long...		Onion	135 to 150
Blood	150	Pepper	140 to 150
Cabbage, Early	105	Radish	30 to 45
Cabbage, Late	150	Squash, Summer	60 to 65
Cauliflower	110	Squash, Winter	125
Corn	75	Tomato	150
Eggplant	150 to 160	Turnip	60 to 70

Legal Weights and Measures.

POUNDS PER BUSHEL.

ARTICLES.	Ills.	Iowa.	Wis.	Mich.	Ind.	Mo.	N. Y.	Ohio.
Apples, dried	24	24	28	22	25	24	22	22
Apples, green	50	57	..	..	..	..	..	..
Bran	20	20	20	20	20	20	20	20
Barley	48	48	48	48	48	48	48	48
Beans, white	60	60	60	60	60	60	62	60
Beans, Castor	46	46	46	46	46	46	46	46
Buckwheat	52	52	50	48	50	48	50	50
Broom Corn Seed	46	46	46	46	46	46	30	30
Beets	60	50	..	..	..	..	56	..
Carrots	55	50	..	..	..	..	50	50
Charcoal	22	22	22	22	22	22	22	..
Coal, stone	80	80	..	..	..	..	80	80
Coke	40	38	..	..	..	..	40	..
Corn, shelled	56	56	56	56	56	56	56	56
Corn, ear	70	70	70	68	70	68	..	..
Corn Meal	48	48	48	50	50	50	50	50
Cranberries	33	..	40	33	..	..	..	..
Dried Peaches	23	23	28	28	33	32	33	..
Flax Seed	56	56	56	56	56	56	56	56
Grass Seed, Blue	14	14	14	14	14	14	15	10
" Clover	60	60	60	60	60	60	60	60
" Hungarian	48	48	48	50	..	48	48	50
" Millet	50	48	50	50	50	..	50	..
" Orchard	14	14	..	14	14	14	14	14
" Red Top	14	14	14	14	14	14	14	14
" Timothy	45	45	45	45	45	45	44	45
German Lupine	60	..	..	..	..	..	..	..
Hemp Seed	44	44	44	44	44	44	44	44
Hickory Nuts	50	..	..	..	..	..	..	..
Malt, Barley	38	36	34	38	38	38	34	34
Mineral Coal	40	..	..	..	70	..	..	..
Middlings, fine	40	..	..	..	40	..	..	..
" coarse	30	..	..	..	30	..	..	..
Oats	32	32	32	32	32	32	32	32
Onions	57	57	57	54	48	57	57	50
Onions, tops	28	28	28	28	28	28	28	25
Onions, sets	32	..	..	..	..	..	..	..
Osage Orange	33	..	..	..	..	..	..	..
Parsnips	55	..	..	55	44	..	..	..
Potatoes	60	60	60	60	60	60	60	60
Potatoes, Sweet	50	46	55	56	55	56	55	50
Peas, dried	60	60	60	60	60	60	60	60
Peas, in pods	32	..	..	..	..	..	..	..
Pop Corn	70	..	..	70	..	..	..	..
Quick Lime	80	80	80	80	80	80	80	..
Rye	56	56	56	56	56	56	56	56
Salt, coarse	50	50	50	50	50	50	50	50
Salt, fine	55	50	56	56	50	50	56	50
Turnips, Rutabaga	55	55	56	58	55	50	55	60
Turnips, white	..	42	..	42	..	..	..	..
Wheat	60	60	60	60	60	60	60	60

To Predict Frost.

When in fall or spring the sunshine is very hot, and the shade very cold and the shadows very deep, look out for frost, because the air is dry and radiation little checked.

To Protect Plants From Light Frosts.

Make a smudge in the garden or vineyard at night when the frost is expected. Rubbish or litter and tar make the best smudge. Syringe the plants thoroughly at night-fall. Vegetables liable to injury by slight frosts are Beans, Corn, Cucumbers, Egg Plant, Melons, Okra, Pepper, Pumpkin, Squash, Sweet Potato, Tomato. House plants will stand about ten degrees more cold if well wrapped in stout paper.

CHOICE FLOWER SEEDS.

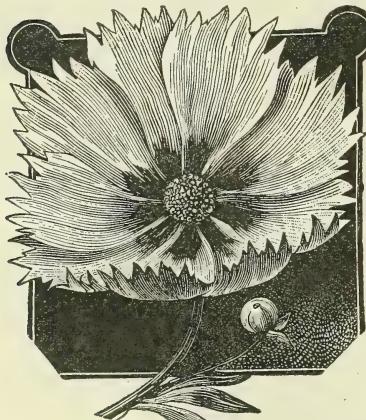
STANDARD VARIETIES

The following is a list of the leading flowers grown from seed. While they are not all annuals, they will bloom the first season, some of course, being planted somewhat earlier than others. We have listed only those strains that are reliable, and are sure to satisfy our customers.



ALYSSUM

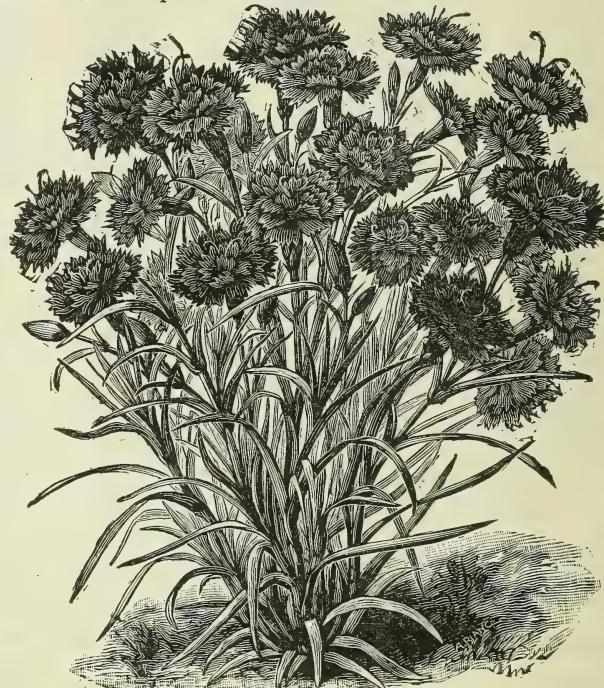
Balsam, White Perfection
Camellia, mixed
red
striped
Roseflowered, mixed
Brachycome Iberidifolia, Swan River Daisy, mixed
Calliopsis, fine, mixed
Candytuft, fragrant, white
White Rocket
Mixed
Canna Indica, fine, mixed
Crozy, mixed



CALLIOPSIS

Canterbury Belle, campanula media, single, mixed
Double, mixed
Carnation, fine
Margaret, finest, mixed
Castor Beans
Chrysanthemum Coronarium, double mixed
Double, white
Cineraria Hybrida, large flowering, mixed
Cobea Scandens
Cosmos, finest, mixed, mammoth

Abronia, umbellata, mixed
Acroclinium, album
Roseum
Ageratum Mexicanum, light blue
Agrostemma, mixed
Alyssum, sweet maritimum
Little Gem, benthami, compactum, erectum
Aster, see next page
Amaranthus, Tricolor, Joseph's Coat
Antirrhinum, majus, mixed
Tom Thumb, mixed, fine strain
Auricula, mixed
Bachelor's Button, centaurea cyanus
Double mixed
Balloon Vine, cardiospermum halicacabum



MARGARET CARNATION

Cockscomb, mixed
Coleus, large leaved, finest, mixed
Convolvulus Minor, Dwarf Morning Glory
Cypress Vine, mixed
Dahlia, finest, double, mixed
Single, mixed
Daisy, finest quality, double, mixed
Eschscholtzia Californica, finest, mixed colors
Forget-Me-Not, myosotis alpestris, blue
Four O'Clock, Marvel of Peru, mixed
Globe Amaranth, gomphrena globosa, mixed
Marigold, African, double, mixed
French, double, mixed
Eldorado
Maurandia, mixed
Mignonette, Sweet
Matchet
Golden Queen



FOUR O'CLOCK

CHOICE FLOWER SEEDS (Continued).



COMET ASTER.

Queen of the Market. Of graceful spreading habit, it is in full flower two weeks before most other asters. Deep blue, white, pink, and rose in mixture.

Victoria. Flowers very large, double, and beautifully reflexed. The plants bear ten to twenty flowers, with the appearance of an elegant pyramid; one and a half feet. All colors mixed.

Christmas Tree. This new type is of a branching pyramidal form.

Truffaut's Paeony-Flowered Perfection. Very double, large and beautiful flowers, with incurved petals.

German Quilled. The common double asters.

Mixed Asters. Many varieties of different types.



BRANCHING ASTER

ASTERS

Of the general beauty of these flowers it is unnecessary to speak; the immense world-wide demand for them shows their adaptability for any climate; and, coming into bloom, as they do, when most other flowers are fading away, enhances their value. For the best results the ground for the cultivation of Asters cannot be too richly prepared, although they will give satisfactory returns on any ordinary garden soil.

Dwarf Chrysanthemum-Flowered. Large double flowers resembling chrysanthemums, and valuable on account of profuse late flowering. All colors mixed.

Daybreak. The plants grow stiffly erect, eighteen to twenty inches in height, with ten to fifteen branches, each bearing a very large, extremely double flower, with incurved petals. The broad silvery petals are suffused with soft delicate pink.

New Giant Comet Asters, Mixed. With good cultivation, flowers of this type frequently measure four inches across, and in their fine form, large size, and long stem approach in beauty the fine Chrysanthemums grown in the greenhouse during the late fall months.

Semple's Branching. All colors mixed of this favorite long-stemmed strain.



VICTORIA ASTER.

Gourd, dish cloth	
Japanese Nest Egg	.....
Hercules Club	.....
Pear shaped	.....
Sugar Trough	.....
Mixed	.....
Geranium, mixed	
Gypsophila, mixed	.....
Godetia, mixed	.....
Helichrysum, largest, double, mixed	.....
Heliotrope, fine mixed	.....
Hollyhock, double, choicest mixed	
Double, pure white	.....
Double, red	.....
Double, maroon	.....
Hyacinth Bean, dolichos lablab, mixed, all colors	
Ipomea, bona nox (Good night)	
Grandiflora alba, Moonflower, white seeded	.....
Larkspur, Double Dwarf, mixed	
Lobelia Erinus, Crystal Palace	
Linum, grandiflorum rubrum	
Love Grove, nemophilia, mixed	
Love-in-a-Mist, nigellia damascena, mixed	
Lupins, mixed, all colors.	



CHOICE FLOWER SEEDS (Continued).

NASTURTIUM.

For ease of culture, duration of bloom, brilliancy of coloring and general excellence, nothing excels Nasturtiums. All they need is a moderately good soil in a well drained, sunny position, and from within a few weeks from the time they are sown until hard

frost comes there is an endless profusion of their gorgeous blossoms.

DWARF.

Chameleon. The colors vary from yellow to deep crimson.

Empress of India. Brilliant dark scarlet.

Golden King. Beautiful rich dark gold.

Golden Queen. Golden yellow leaves and flowers.

King of Tom Thumb. Deep scarlet flowers.

King Theodore. Black-red; the darkest variety grown.

Pearl. Creamy white.

Rose. Deep, bright rose, tinted salmon.

Ruby King. Ruby-red, with salmon tint.

Yellow. Bright yellow; no blotches.

Dwarf Varieties Mixed.

TALL.

Chameleon. Flowers similar to Dwarf Chameleon.

Dark Crimson. Deep velvety crimson.

Hemisphaericum. Straw color, blotched with rosy pink.

Lemon-Yellow. Clear bright yellow.

Orange. Deep orange, blotched.

Pearl. Creamy white.

Rose. Soft pink; a very choice sort.

Scarlet. Bright orange scarlet.

Tall Varieties Mixed.

SWEET PEAS.

Aurora. White, flaked with orange-salmon; large flower.

Blanche Ferry. Pink, white.

Captain of the Blues. Nearly true blue.

Dainty. White, edges tinted pink.

Emily Henderson. Large, pure white.

James Scott. Pink.

Jeanie Gordon. Bright rose.

King Edward VII. The best dark red.

Lady Grisel Hamilton. Best of all lavender varieties.

Lottie Eckford. Heliotrope-blue.

Lovely. Shell-pink.

Miss Wilmot. Orange-pink.

Othello. Deep maroon.

Prima Donna. Pink.

Prince of Wales. Bright rose.

Stella Morse. Primrose.

Venus. Soft, buff-pink.

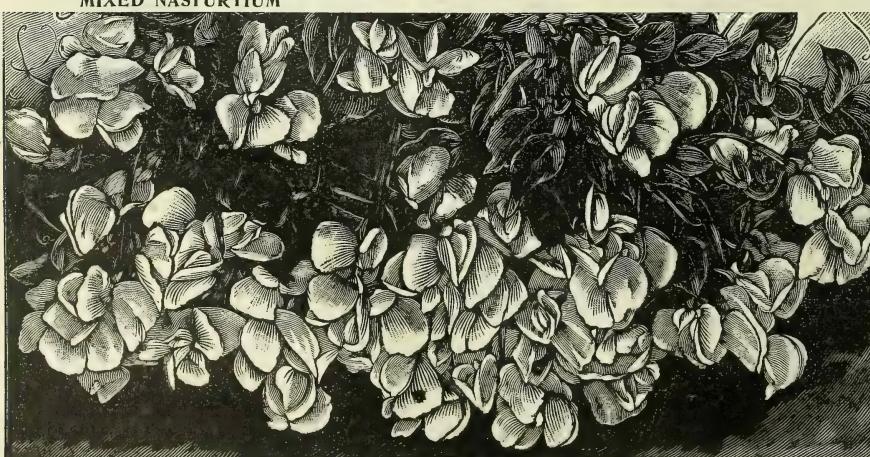
MIXED SWEET PEAS.

Named Sorts Mixed.

Choice Mixed.

Bush Varieties Mixed.

Cupid Sorts Mixed.



CHOICE FLOWER SEEDS (Continued).



GIANT FIVE-SPOTTED PANSY.

Poppy, Carnation, mixed

Double, mixed

Snowdrift

Mikado

Shirley

Portulacca, White

Pink

Scarlet

Crimson

Mixed

Double, mixed

Petunia, fine, mixed

Double, Superb, mixed

Phlox, Drummondii, Star

Alba, pure white

Carmine, red

Black Warrior

Splendid, mixed



SALPIGLOSSIS.

Wallflower, double, mixed, extra fine

Zinnia, Pompon, finest mixed

Choicest mixed

Scarlet

Mimulus Moschatus, Musk plant

Morning Glory, Convolvulus Major, mixed, $\frac{1}{4}$ lb. . . .

White

Blue

Crimson

Japanese Imperial, mixed

Mourning Bride, dwarf, double, mixed, Scabiosa

Nasturtium, (see page 28)

Pansy, Emperor William

King of Blacks

Giant Five-Spotted, very fine

Giant Striped

Odier, large stained

Red Flowered Victoria

Peacock

Large Flowered Parisian, very large stained

Trimardeau

Extra choice, mixed

Fine, mixed

White

Yellow

Butterfly

Purple

Mahogany

Beaconsfield

Cardinal

Blue



DOUBLE POPPIES.

Pinks, Dianthus, Chinensis double China Pinks, mixed

Heddewig's Double Diadem, mixed

very fine

Heddewig's Finest Single, mixed

Crimson Belle, double crimson

Eastern Queen, double, white

Primrose, choice mixed fimbriata

Passiflora coerulea

Salpiglossis, extra fine, hybrid varieties, mixed

Salvia Splendens

Sensitive Plant, Mimosa pubica

Snapdragon, Antirrhinum, finest, mixed

Ricinus (Castor Oil Plant), mixed, oz., 10c

Zanzibarensis, mixed, immense

foliage, oz., 10c

Stocks, double, German, ten weeks, mixed

Sunflower, Globosus, Fistulosus double

Sweet William, single, mixed, fine

Sweet Peas, see page 28

Verbena, Defiance, deep scarlet

Blue

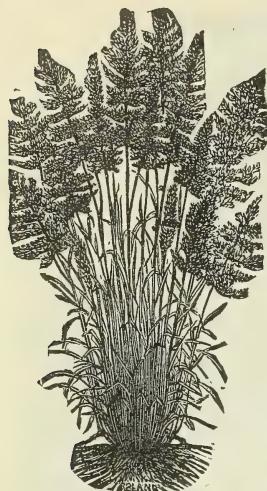
White

Mammoth, extra choice, mixed

Fine, mixed



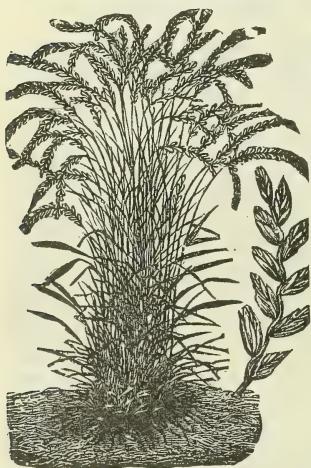
SWEET WILLIAM.



RED TOP GRASS



ORCHARD GRASS



ENGLISH RYE GRASS

GRASS SEED.

Blue Grass. (*Poa Compressa.*) Commonly called Canada Blue Grass. A very valuable grass for pasture and lawns. **Market Price.**

English Rye Grass. (*Lolium Perenne.*) A very nutritious rapid growing variety, valuable for meadows and pastures. Twenty-four-pound bushel. **Market Price.**

Tall Meadow Oat Grass. (*Avena Elatior.*) This produces an abundant supply of foliage, and is valuable for pasturage on account of its early and luxuriant growth. **Market Price.**

Sweet Vernal Grass. (*Anthoxanthum Odoratum.*) Permanent pastures should not be sown without a portion of this grass. **Market Price.**

Hard Fescue. (*Festuca Duriuscula.*) Similar to Sheep's Fescue, but not so dense, and growing somewhat taller. **Market Price.**

Red Top. (*Agrostis Vulgaris.*) A valuable grass for moist soils and low lands. It is a good, permanent grass, standing our climate well.

Solid Seed, Best Grade. **Market Price.**

Chaff Seed. **Market Price.**

Timothy. (*Phleum Pratense.*) This is decidedly the best grass for hay. **Market Price.**

Italian Rye Grass. (*Lolium Italicum.*) A valuable European variety, adapted to any climate, and produces large and nutritive crops. Eighteen-pound bushel. **Market Price.**

Orchard Grass or Rough Cocksfoot. (*Dactylis Glomerata.*) This is one of the most valuable and widely known of all pasture grasses. It is well adapted for sowing under trees or orchards. **Market Price.**

Meadow Fescue or English Blue Grass. (*Festuca Pratensis.*) Needs rich ground, and succeeds well on prairie soil. Sow about twenty-five pounds per acre. **Market Price.**

Wood Meadow Grass. (*Poa Nemoralis.*) One of the best varieties to sow in shaded situations, such as orchards and parks, for either hay or pasturage. Sow about thirty pounds to the acre. **Market Price.**

Creeping, Bent Grass. (*Agrostis Stolonifera.*) Particularly valuable for lawns that are to be used as croquet and tennis grounds. **Market Price.**

Meadow Foxtail. (*Alopecurus Pratensis.*) Valuable for permanent pastures, and does best on good moderately moist soil. **Market Price.**

Tall Fescue. (*Festuca Elatior.*) A valuable perennial grass, very productive and nutritious. If used alone, sow forty pounds per acre. **Market Price.**

Blue Grass. (*Poa Pratensis.*) Commonly called Kentucky Blue Grass and known in some sections as "Green Meadow Grass" and "June Grass." It is the best pasture for our climate and soil, succeeding finely on hill lands and producing the most nourishing food. Sow early in the spring or during the months of October and November. Fancy clean seed. **Market Price.**

LAWN GRASS.

A pound of seed will sow about twenty feet square.

Standard Lawn Grass. For quickly producing a permanent, thick and velvety sward of grass, this brand of Lawn Grass cannot be excelled. It is the best mixture of grasses we sell for lawn making, and will give satisfaction wherever sown.

Mixture for Shaded Spots. Usually it is quite difficult to obtain a satisfactory growth of grass under trees and in shady places, for sowing in such places we recommend the use of this special mixture. It will quickly produce an abundant and even growth of beautiful green grass.

CLOVER SEED.

Medium Red or June. (*Trifolium Pratense.*) Sow in spring or fall, at the rate of eight or ten pounds per acre. **Market Price.**

Mammoth or Large Red. (*Trifolium Pratense.*) Sow at the rate of about eight pounds per acre. Sixty pounds per bushel. **Market Price.**

White Dutch. (*Trifolium Ripens.*) A small, creeping, spreading, perennial variety, valuable for pasture and lawns. **Market Price.**

Alsike or Swedish. (*Trifolium Hybridum.*) This valuable variety is fast gaining great popularity.

Alfalfa or Lucerne. (*Medicago Sativa.*) Will bear cutting three or four times during the season. For bringing up poor land it is the best of the clovers. **Market Price.**

Crimson or Scarlet Clover. Can be seeded at any time from June to October, at the rate of fifteen to twenty pounds per acre. **Market Price.**



Alsike, or Swedish Clover.



Red Clover.



White Dutch Clover.



Scarlet Clover.



Lucerne, or Alfalfa.

FIELD CORN.

Prices Change. Ask for Market Price.

Pride of the North. This famous corn still retains its popularity; an exceedingly early and prolific variety, always maturing in ninety days; often shelling sixty-two pounds of grain from seventy pounds of ears. Kernels closely set, large, of deep orange color; cob very small and red; stalks about seven feet in height. This is, probably, the best Dent corn for general cultivation in the north.

Champion White Pearl. Originated in Illinois, and is enormously productive; a strong grower; matures in about 100 days. The stalk is stout and thick, with large ears set low.

Iowa Gold Mine. A splendid yellow corn. Everyone who has tried it is enthusiastic in the praise of this splendid variety which was introduced in 1892. It has everywhere received the most cordial endorsement as one of the best and most profitable varieties ever grown.

Iowa Silver Mine. The Iowa Silver Mine is a splendid white corn. In 1894, the poor corn year, it yielded at the rate of ninety-seven and one-third bushels to the acre. It has no barren stalks. The ears are very even in size, being but little smaller at the tip than at the butt, and corn is well filled out over the tip.

Longfellow Flint. This is an eight-rowed Yellow Flint variety, the result of careful selection. The ears are from ten to fifteen inches long, one and one-half to one and three-fourths inches in diameter, are well filled out to the extreme end of cob.

Canada Eight-Rowed Flint. This standard Flint corn is the earliest of all. It is a safe corn to plant where the season is short. It will mature in eighty-five days of good corn weather.

Improved Leaming. The Improved Leaming Corn is a medium early yellow variety; large, slightly tapering ears, deep grain, and medium sized red cob. In favorable years there is much uniformity of both kernels and ears. Its numerous broad leaves not only encourage a healthy development but make it a valuable variety for feeding.



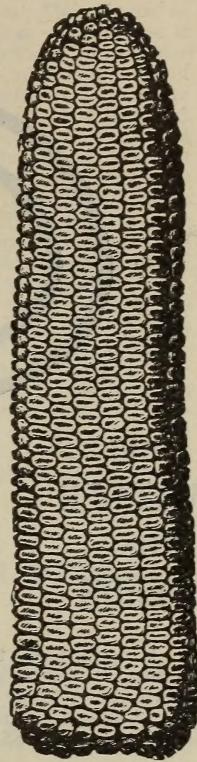
KAFFIR CORN

Dwarf Essex Rape. A forage plant of great merit, easily grown in any part of the United States, on any land that will raise turnips or corn, and will furnish abundant supplies of succulent, rich, nutritious pasture, at a season when it is most needed.

Russian Sunflower. This is highly prized by poultry raisers and farmers as a cheap food for fowls. It is immensely productive and can be raised cheaper than corn, as any waste piece of ground will suffice. It is the best egg-producing food known.

Prices Change. Ask for Special Rates when Ready to Buy.

Prices Vary on All Farm Seeds
WRITE FOR MARKET PRICE



IMP. LEAMING.

MISCELLANEOUS GRAINS.

FIELD PEAS.

White Canada.
Blue or Green.

COW PEAS.

Black Eye.
Whip-Poor-Will.
Black. Seed all black.
Clay Colored.]

SUGAR CANE.

Early Amber.
Early Orange.

MILLET SEED.

Japanese Barnyard.
Siberian.
Pearl.
Hog.
Common.
German or Golden
Hungarian.

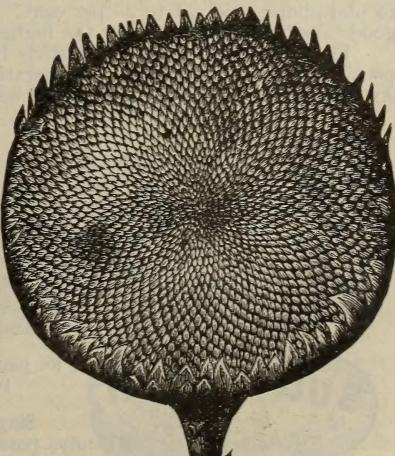
Kaffir Corn. One of the best forage plants. If the crop is wanted mainly for fodder, it is recommended to cut down the whole stalk when the first seed heads come into bloom.

BROOM CORN.

Improved Evergreen.
Early Japanese.

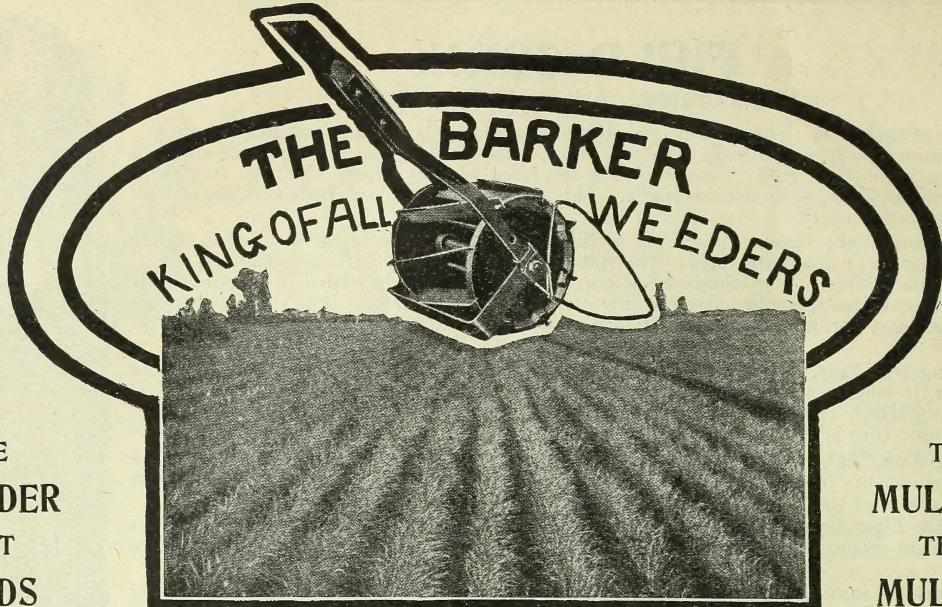
MISCELLANEOUS.

Spurry.
Lathyrus Sylvestris.
Barley, Common.
Rye, Spring.
Rye, Winter.
Buckwheat, Silver Hull.
Buckwheat, Common.
Buckwheat, Japanese.
Flax Seed, for Sowing.



RUSSIAN SUNFLOWER

THE
WEEDER
THAT
WEEDS



THE
MULCHER
THAT
MULCHES

It operates on the plan of a lawn mower. It is better than a hoe. It is ten times as fast. It is easy to operate. It forms a dust mulch. Buy a Barker Weeder and Mulcher and cut your garden the same as you buy a lawn mower to cut your lawn. Cut your weeds in your garden ONCE A WEEK. It cuts the weeds under the ground as well as the weeds out of the ground. It pulverizes the ground fine, which holds the moisture to feed the plant. Price \$5.00.

FERTILIZERS.

FERTILIZER VALUES VARY. WRITE FOR PRICES.

Vegetable and Lawn. Guaranteed analysis: Ammonia, 4 to 5 per cent; available phosphoric acid, 7 to 9 per cent; total phosphoric acid, 8 to 11 per cent; actual potash, 7 to 9 per cent. This is positively the best article on the market for use as a complete manure for all purposes. It is the best lawn fertilizer ever prepared. Note the large amount of actual potash in this brand.

Farmers' Favorite Brand. Guaranteed analysis: Ammonia, $3\frac{1}{2}$ to $4\frac{1}{2}$ per cent; available phosphoric acid, 8 to 9 per cent; total phosphoric acid, 13 to 14 per cent; actual potash, 4 to 5 per cent. Two hundred pounds of this will go as far as six hundred pounds of almost any other brand on the market. It is available for spring crops and also lasting in the soil. It is the best brand on the market for fruit trees, vines and small fruits.

Sure Winner Brand. Guaranteed analysis: Ammonia, $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent; available phosphoric acid, 7 to 9 per cent; total phosphoric acid, 12 to 14 per cent; actual potash, 3 to 4 per cent. For land and crops requiring minerals (phosphoric acid and potash) and very little ammonia, this brand fills the bill.

Pure Ground Bone, Steamed. Guaranteed analysis: Ammonia, 3 to 4 per cent; bone phosphate, 50 to 60 per cent; equal to phosphoric acid, 24 to 26 per cent. In this article we give you a finely ground, steamed bone, pure and in the best possible condition. Users of bone alone can find no better article. It will analyze nearer the highest per cent given in our guarantee than it will the lowest. It gives great big results on fall crops.

Ground Raw Bone. Guaranteed analysis: Ammonia, 4 to 5 per cent; bone phosphate, 45 to 55 per cent; equal to phosphoric acid, 21 to 25 per cent. This is a pure ground raw bone—no rock is put in to cheapen it. These goods also will analyze nearer the highest limit of our guarantee.

Florist's Plant Food. This article has been made at the suggestion of florists, who desired to obtain an inexpensive, effective and odorless preparation, that would act quickly on plants and furnish food for flower and leaf. An application of this plant food will be observed in the vigorous growth of the flowers and a deep green foliage.



INSECTICIDES.

Bug Death. This new preparation comes highly recommended after a six years' test. It is sure death to the Potato Bug, and besides it acts as a fertilizer. There are many testimonials at hand from very large potato growers. From the reports that we have received in regard to this new insecticide we feel much confidence in offering it with our indorsement to any of our customers who want a quick acting, sure, non-poisonous bug killer. It can be used on all vegetables and fruit crop and will give excellent results.

1 lb. package, 15c.; 3 lb. package, 35c.; 5 lb. package, 50c.; 12½ lb. package, \$1.00;
100 lb. keg, \$7.50.

Slug Shot. (Hammond's). Excellent for destroying cabbage, turnip and beet fly, potato bugs, currant worms, etc. Prepared ready for use. 5 lb. pkg., 30c.; 10 lb. pkg., 50c.

FORMULAS FOR SPRAYING MIXTURES

Prepared at the Agricultural Station, Cornell University.

Bordeaux Mixture.

Copper Sulphate	6 pounds
Quicklime	4 pounds
Water	40 gallons

Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least 4 gallons, so that it is just covered by the water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make 40 gallons. It is then ready for immediate use. For rots, moulds, mildews, and all fungous diseases.

Ammoniaca Copper Carbonate

Copper Carbonate	1 ounce
Ammonia	enough to dissolve the copper
Water	9 gallons

The copper carbonate is best dissolved in large bottles, where it will keep indefinitely, and it should be diluted with water as required. For same purpose as Bordeaux.

Paris Green

Paris Green	1 pound
Water .....	.250 gallons

If this mixture is to be used upon peach trees, 1 pound quicklime should be added. Repeated applications will injure most foliage unless lime is added. **Paris Green and Bordeaux can be applied together with perfect safety.** The action of neither is weakened, and the Paris Green loses all caustic properties. For insects which chew.

Copper Sulphate Solution

Copper Sulphate	1 pound
Water	15 gallons

Dissolve the copper sulphate in the water, when it is ready for use. **This should never be applied to foliage, but must be used before the buds break.** For peaches and nectarines use 25 gallons of water. For fungous diseases.

London Purple

This is used in the same proportion as Paris Green, but as it is more caustic it should be applied with lime, or with the Bordeaux mixture. Do not use it on peach or plum trees. For insects which chew.

Hellebore

Fresh White Hellebore	1 ounce
Water	3 gallons

Apply when thoroughly mixed. For insects which chew.

Kerosene Emulsion

Hard Soap	½ pound
Boiling Water	1 gallon
Kerosene	2 gallons

Dissolve the soap in the water, add the kerosene, and churn with a pump for 5-10 minutes. Dilute 10 to 15 times before applying. For insects which suck, cabbage worms, and all insects which have soft bodies.

TO PREPARE A COLD FRAME

The coldframe is simply a frame set on the ground, no bottom heat being applied. It is banked up on the outside during the winter with marsh hay, straw or coarse

litter. The soil is prepared by forking in and thoroughly mixing to the depth of 10 or 12 inches a liberal quantity of old, well-rotted manure. The frame is prepared in the fall, and young Cabbage, Cauliflower and Lettuce plants are set out in it in time to get well established before very cold weather. Cauliflower and Cabbage should be set down to the first leaf, and the soil made firm around the plants. The seed is usually sown, in this vicinity, from the 15th to the 20th of September. The young plants will be ready to transplant in about 25 to 30 days. During cold nights and stormy days, the beds should be closely covered with the sashes, and these further protected by straw mats or shutters. Cauliflower needs more and closer protection than Cabbage, and it is rather more tender. During mild days admit air freely, the object being to keep the plants in a dormant state, without actual freezing, so that when spring comes they are in a forward state for setting out early crops. Seeds of Cabbage, Cauliflower, Lettuce and Radish may be sown in a coldframe in the spring from the last week in February to the first week in March. The frame should stand in a warm and sheltered spot, and be kept from freezing by mats or a thick covering of straw during cold nights.

DIRECTIONS FOR MAKING A HOTBED

In this vicinity, from the first to the latter part of March is quite early enough to make a hotbed. The time must vary according to the latitude. Provide a quantity of fresh horse-manure from the stables, and add to this, if they can be had, one-third to one-half of its bulk of leaves. Mix them thoroughly, tramping down the mass in successive layers, and form into a large pile, so that fermentation will proceed, even in severely cold weather. In two or three days fermentation will be apparent by the escape of steam from the heap. Now turn again, and allow the heap to remain two or three days longer, or until the second fermentation commences. Make an excavation or pit $2\frac{1}{2}$ feet deep, and of a size suited to the number of plants required. The pit will be better if built up of brick. It should be made in some dry, sheltered spot, facing the south or east, if possible. Hotbed sashes are usually 3 x 6 feet, and one or two sashes will give early plants enough for a small family. The frame for sashes should be 18 inches high at the back and 12 inches in front, which will give the proper slope to catch the sunlight. Cross-pieces should be placed for the sashes to slide on, to facilitate opening and shutting the frames. When everything is ready, the manure is placed in the pit and trodden down firmly in layers to the required depth, 2 to $2\frac{1}{2}$ feet. Then put on the sashes, and keep the pit closed until the heat arises. At first it will probably be 100 degrees or more, which is too hot to sow the seed in; but in two or three days it will subside to 90 degrees or a little less, when the soil may be put on to the depth of 6 to 8 inches. The heat may be readily ascertained by plunging a thermometer into the manure. The soil should be of well-rotted sod (or common garden soil will do), mixed with about a third of fine old manure; and in this the seeds may be sown thinly in drills 2 to 3 inches apart, and afterward (as soon as out of the seed-leaf) either thinned out or else transplanted to another frame. Air must be given every mild day by raising the sashes at the back. Water with tepid water whenever necessary, and during cold nights and snow-storms keep covered with mats or board shutters. Tomatoes, Peppers and Eggplants should be sown in a separate frame from Cabbage, Cauliflower and Lettuce, as they require more heat. The same directions may apply to hotbeds made on the surface of the ground, except that the manure should be at least a foot wider on all sides than the frame.



Compliments of

Ottumwa Seed Co.

Ottumwa, Iowa